

## It's Important to Know In Time'

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The Newspaper of the Industry

# Air Conditioning & REFRIGERATION

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## Inside Dope

By George F. Taubeneck

### Light Under a Bushel

Earl Vallee of Automatic Products Co. has long contended that the refrigeration industry needs a public relations program. He puts it neatly when he says that:

"This industry has done a magnificent job of hiding its product. Refrigeration systems are generally out of sight, unnoticed. And, since we don't tell the public much about them, we are pretty much ignored."

Earl has something there, all right. That's why we were so startled to read the following in the Dec. 27 Detroit Free Press. Under a Washington dateline, Clifford Prevost wrote:

"The health problem is linked, of course, with problems of sanitation, heat, and refrigeration for food. Electric refrigerators are more extensively used in this country than anywhere else in the world, and it will become increasingly difficult to replace worn out parts. In some sections that has already become quite a problem."

Inasmuch as Mr. Prevost's article was an off-the-record interview with "high officials," it would seem as if the fact that refrigeration is indispensable has finally leaked out. It's about time.

For too many months those of us who have been trying to make this fact known have been treated as if we were self-seeking obstructionists, hampering the war effort through personal greed.

Maybe now, at long long last, someone has found out that if we are to go on eating, we have to go on refrigerating.

### Raymond Clapper

And then, believe it or not, nationally-syndicated Raymond Clapper comes across with a dandy piece of "publicity" for the industry. In a column which praises advertising copy which talks of post-war developments and planning, he writes:

"The contrast between the vision in some of this advertising and the run of moth-eaten political speeches is painful. . . . Industrialists are showing far more imagination than politicians."

"The advance of technology, the things that the airplane is doing to the world, what air conditioning can do, and what refrigeration can do, and tropical medicine—these are new circumstances of which industry is aware."

"They know that these new circumstances change the environment in the world and give new opportunities, make things possible now that were not possible 30 years ago."

Brother Clapper, you said a mouthful!

### Angry People

In recent weeks this department has been contributing a great many nights to a neighborhood Price and Rationing Board. It has been quite an experience.

Our chief impression is that the country is largely composed of angry people today. Nearly everyone who comes in is sore about something. This anger takes two principal forms:

(1) Being sore because Neighbor Jones got a "C" card, and "he's no better than I am."

(2) Being sore because the rules and forms are too complicated to understand, or because they are too inflexible to allow for special conditions. (Commonest example: "My car only gets 10 miles per gallon.")

### Can't Have Both

To tell the truth, the latter objections are somewhat at a tangent. (Concluded on Page 4, Column 1)

## Consumer Good Retail Inventory Limits Are Set

Stores Holding \$50,000 Inventory or \$200,000 Yearly Sales Hit

WASHINGTON, D. C.—In an order signed Dec. 29 the WPB placed limits on the quantities of consumers' goods that retail merchants, wholesalers and stock-carrying branches of manufacturers may keep on hand.

Purpose of this action is to assure equitable distribution of the limited volume of consumer goods which will be available as the war progresses, the WPB said.

In announcing the new order, Donald N. Nelson, WPB chairman, said that the order will apply to every merchant who, on or after Nov. 30 last, had or has a total mercantile inventory of consumers' goods having a cost value of \$50,000 or more at the end of any quarter of his Federal income tax year, and who also had net sales during the 12 months preceding the end of the same quarter of \$200,000 or more of consumers' goods.

While the order does not directly cover merchants with annual sales of less than \$200,000, Mr. Nelson said that this was an "experiment in self-government for the smaller stores," and that they should maintain pre-war stock-sales ratios.

"A continuing study," he stated, "will be made of inventory-sales statistics, especially of concerns with \$100,000 to \$200,000 sales a year. This is a flexible order we have issued, and if it is necessary in the public interest, the exemption limits will be lowered."

The new order, the WPB is planning, will have the effect of holding consumers' goods inventories of the larger concerns at about the same level, in relation to their sales, as they maintained prior to Pearl Harbor, and thus assure that larger quantities are available for distribution through the smaller outlets. Merchants who have excessive inventories when the order becomes effective will be brought into line through restriction of their purchases.

Consumers goods covered by the order are defined as goods suitable for sale to individual ultimate consumers for personal or household use.

Eaton Read, chairman of the committee which worked out the inventory control program, said that merchants will get ample opportunity to adjust their inventories into proper alignment and that he saw little likelihood that the order would bring down any rush of forced liquidation sales of excessive stocks. His com-

(Concluded on Page 4, Column 4)

## Proper Preparation of PD-1X Forms Urged

NEW YORK CITY—Wholesalers of refrigeration and appliance service parts should learn how to make use of the PD-1X form in obtaining service parts if they are really interested in keeping parts flowing through their establishments, declared Sterling A. Warren, chief of the miscellaneous section of the Distribution Branch of the WPB in a recent talk here.

However, he warned that use of the PD-1X form does not automatically insure delivery, because "there's still a war going on."

"It is the thinking of the WPB to keep essential equipment in operation, and to that end we are exerting every effort in the matter of supplying necessary parts," he declared.

## OPA Sets Prices on 3 Additional Models In Frigidaire Line

WASHINGTON, D. C.—Maximum prices for all sales of three mechanical household refrigerators produced by the Frigidaire division of the General Motors Corp., Dayton, Ohio, are established at 1941 levels in two actions taken by the Office of Price Administration.

The manufacturer's base prices in sales to distributors are established in Order No. 2 to Revised Price Schedule No. 102 (Household Mechanical Refrigerators) and the maximum retail prices are contained in Amendment No. 5 to Maximum Price Regulation No. 110 (Resale of New Household Mechanical Refrigerators). Dealers' prices are computed from the base prices established by the order in accordance with provisions of Revised Price Schedule No. 102.

In ascertaining the maximum prices, OPA considered the differences (Concluded on Page 16, Column 3)

## York Profit Is Over Million; 73% Work Is In Refrigeration

YORK Pa.—Net earnings totaling \$1,067,475 after taxes on \$22,541,345 in completed business were reported here today for the York Ice Machinery Corp. for the fiscal year ending Sept. 30. This compares with \$1,202,134 in net earnings for the previous year after taxes on a completed sales volume of \$19,817,282.

In its annual letter to stockholders, the company disclosed that this year's earnings were equal to \$1.19 per share on an estimated number of shares of the York Corp.

Orders booked during the year totaled \$40,071,428 compared with \$27,464,938 for the previous year. At the year end the company had a backlog of \$27,750,000. Backlog for the previous year amounted to \$10,283,372, according to S. E. Lauer, president. Sales reported for profit included only the value of those contracts 85% or more completed. Working capital has been increased to \$10,341,000.

A total of 73% of the company's business is in the manufacture and installation of refrigeration and industrial air conditioning equipment for war plants and for the nation's naval and military forces. A small part of this is for repairs authorized

(Concluded on Page 16, Column 1)

## May Relax Bans On Uses of Cork

LANCASTER, Pa.—Restrictions on use of cork for insulation purposes may be relaxed soon by the government, Armstrong Cork Co. here suggests, in view of the country's present cork supply, nearly twice that of normal times and more than double that on hand when cork was placed under mandatory control by War Production Board in June, 1941.

With this large stockpile in reserve built up by arrival of cork every month from the producing countries, a still larger supply is anticipated through probable increased shipments from North Africa, Spain, and Portugal, Armstrong points out in predicting the ease-up of cork control.

A trend toward relaxation was indicated recently, the company states, when Conservation division of WPB moved cork from Group 2 to Group 3 in the Material Substitution and Supply list, classifying cork as one of the materials available in sub-

(Concluded on Page 16, Column 2)

## Office of Exports Has Questionnaire On Refrigeration

WASHINGTON, D. C.—The Office of Exports, Board of Economic Warfare, is giving consideration to War-time export problems of the refrigeration industry, it was revealed in official announcements made last week by the Board of Economic Warfare.

The Office of Exports will circulate a questionnaire among refrigeration exporters, it was announced. The nature of the questionnaire was not revealed.

Some time ago a meeting was held in Washington for the purpose of discussing export problems related

### Want BEW Questionnaire on Exports? Send Us Your Name

Any firm interested in the export or refrigeration equipment who wants a copy of the questionnaire which the Office of Exports is circulating can write to AIR CONDITIONING & REFRIGERATION NEWS, which in turn will submit the name of the company to the Committee on Exports for the Refrigeration Industry. The BEW has specifically authorized AIR CONDITIONING & REFRIGERATION NEWS to make this announcement.

to the refrigeration industry. For reasons not revealed, the BEW would not release any publicity on this meeting. (AIR CONDITIONING & REFRIGERATION NEWS had a report on the meeting, but held it in abeyance pending an official release from the BEW). A committee on refrigeration exports has also been named, but the BEW requests that the name of its committee members and its headquarters be withheld.

Last week an "official" news release on the export meeting was sent to the NEWS. It is herewith published in full for whatever value it may now have for the industry:

"On Tuesday, Nov. 24, at the Raleigh hotel, Washington, D. C., a (Concluded on Page 16, Column 1)

## Industry Is Permitted To Use Iron & Steel In More Applications

WASHINGTON, D. C.—Revision of the military exemption list (List C) of the Iron and Steel Conservation Order, M-126, was announced Dec. 26 by the Director General for Operations of WPB. The amendment liberalized some provisions of the order as it concerns refrigeration and air conditioning equipment.

The revised List C sets forth equipment and products permitted to be manufactured of steel and stainless steel for the Army, Navy, Maritime Commission, and War Shipping Administration.

Among the products appearing on the military exemption list for the first time are: bases on refrigerating machines for use on board ship, and certain additional types of air conditioning equipment.

Iron and steel can now be used to make air conditioning systems for hospital operating rooms and industrial plants (excluding offices), for use on board ship, for use outside the continental limits of the U. S., for use in fortifications, for handling and storage of explosives, for storage and handling of instruments critical to temperature or humidity, for use in gas proofing installations, and for use in mobile surgical vehicles and laboratory vehicles.

## Marketing Assn. Backs Plan For Layaway Goods

Meeting May Be Held on 'Earmarking' of Bonds For Postwar Purchases

NEW YORK CITY—Preparations for a conference of interests desirous of instituting a so-called "layaway" program for the purchase of postwar refrigerators, automobiles and other products were revealed here Dec. 26 by Dr. R. J. McFall, chairman of the coordinated and cooperative marketing committee of the American Marketing Assn.

Disclosure of preliminary plans for such a conference followed the appearance of additional reports on the so-called Nugent plan for deferred buying of postwar products. The details revealed were somewhat sketchy but in general the plan appeared similar to that of the American Marketing Assn. and those advanced by other groups.

It provides for issuance of merchandise bonds or certificates which would enable consumers to start paying now and get priority on the purchase of household durable goods or automobiles when the war is ended. The U. S. Treasury would be the actual repository of cash paid in.

The American Marketing Assn. plan, which appears to be more comprehensive than any others advanced, has created considerable interest in the electrical goods, automobile, gas appliance, banking, labor and even the insurance fields, according to Dr. McFall. The Canadian government has also expressed interest in the idea as a method of siphoning off excess purchasing power.

The American Marketing Assn. plan provides for issuance of Victory Merchandise bonds, which would be sold through established sales organizations of large concerns and which would assure purchasers of priority in buying postwar products. The association has developed a county buying power index through which bond sales would be established on a quota basis county by county.

Although considerable approval of such a plan has been indicated by some business interests, opposition has developed in several quarters. The head of one of the large financing organizations has indicated vigorous opposition and the Treasury Department has not been convinced as yet that issuance of such bonds is practicable.

The Treasury Department was originally unfavorably impressed on the basis that the necessity of the public having to decide what product would be wanted on an undetermined date in the future and relative liquidity of such bonds would make them less appealing than regular war bonds. It also questioned the advisability of using a large sales organization to push the sale of such bonds when manpower is short.

Clarifying its proposal, the American Marketing Assn. (Concluded on Page 4, Column 5)

## Midwest Jobbers Meet in January

DES MOINES, Iowa—Midwest Refrigeration Supply Jobbers Assn. will hold its first meeting of the new year Jan. 25 at the Fort Des Moines hotel here, announced W. E. Burch, secretary. The group will discuss "Idle and Excessive Inventories."

Mr. Burch stated that the meeting will begin at noon and explained that manufacturers representatives as well as association members are welcome to attend.



## Benefits To Industry In Turning Its Obsolete Equipment To Scrap Outlined

CHICAGO—Pointed arguments—including possible reduction of income tax—for immediately moving into scrap or salvage all unused or obsolete equipment and materials are outlined in a report by L. C. Reed of Inland Steel Co. here, Chicago regional chairman of the Industrial Salvage Campaign.

Topping Mr. Reed's list of advantages is a chance for industry to write off today, usually at a fair net profit, items of questionable use in a post-war period marked by new production developments and changes in machine design.

By disposing of all out-moded equipment now, he argues, manufacturers will be able to begin peace activities using the most modern equipment with which to convince their markets that a superior product, worth owning because of greater application and usefulness, is being produced.

### QUOTES TREASURY

He draws three more reasons for scrapping from the statement of the U. S. Treasury Department.

"When through some change in business conditions the usefulness in the business of some or all of the capital assets, such as machine tools, is suddenly terminated, so that such assets are permanently discarded by a taxpayer from use in such business, the taxpayer may claim a deduction in his Federal income tax returns as a loss for the year in

which such action is taken for the difference between the adjusted basis and the salvage value of the property."

### 3 REASONS GIVEN

These reasons are:

1. If the material to be scrapped has not been entered in the books as fully depreciated, complete depreciation can be assumed at the time of scrapping with the amount of added depreciation, less salvage value, deducted as a loss.

2. If the material to be scrapped is entered as fully depreciated with only salvage value carried on the books, no apparent reason can be found for failing to salvage for the war effort since scrapping would merely eliminate that item from the books with no effect at all on taxes.

3. If the material to be scrapped is entered as fully depreciated and the scrap value written under profits and losses, the profit value of the scrapable material becomes insignificant beside the larger advantage of moving antiquated equipment now in cooperation with the war effort.

Mr. Reed finally points out that much material now stored for "possible" future use may actually be less valuable than the floor space that it occupies, particularly if it has been packed away for a long period of time. He argues again for moving the material into scrap or salvage and putting the storage area to more profitable use.

## Nelson Cites Need For Preserving Present Channels of Distribution

### Says 'Considerable Inventories of Essential Consumers Goods' Should Be Kept on Hand

WASHINGTON, D. C.—Calling smaller business groups the backbone of independent enterprise, Donald M. Nelson has asserted here that he is doing all he can as chief of War Production Board to strengthen small business which must "not only survive but also become a stronger, more effective force in economic life."

Small business must reach that goal before America can "win the peace as well as the war," the WPB head intimated.

### LETTER TO SENATOR

Mr. Nelson further wrote in a letter to Senator James E. Murray of Montana, chairman of the special Senate Small Business committee:

"I am trying and shall continue to try to guide all the war production activities under my direction—those of the War Production Board, the procurement and production activities of the armed services and others—toward achieving that goal."

He told senators that WPB and its subagencies had already made several surveys to see how this greater role for small business could be accomplished.

"With a view to lightening the bookkeeping load on business, especially small business," Mr. Nelson explained, one of these studies had

been investigation of all questionnaires required of industry by WPB. As a result 120 forms were eliminated and 132 "improved and simplified," he reported.

In line with the greater part which Mr. Nelson seeks for smaller business in the industrial picture, he stated that regardless of size, any manufacturing enterprise needed for war production or for making essential civilian goods should be put to work at the job for which it is, or can be, suited. He claimed that it was his responsibility as WPB chairman, and the general responsibility of the board itself, to fit all manufacturing firms into this war program.

Mr. Nelson further offered 10 specific policy questions for the Small Business committee to consider. Summing up his suggestions, he asked, "What should be the government's major objectives and major policies in connection with distribution to consumers in a war economy?"

He admitted that rationing, price control, transportation reduction and related problems had enormously complicated the distribution system, and advised that there might be times when certain areas would completely lack some civilian goods because of distribution breakdowns.

"It may well be advisable, therefore, to have considerable inventories of food, fuel, clothing and health supplies stored adjacent to consumers at all times against such an eventuality," he pointed out.

### SOME STATES WILL CLOSE

The WPB chairman also warned that "entire lines of some distributors will be eliminated" and that many stores may go out of business. This second point, he remarked, "poses grave problems as to whether such elimination should take place through the natural operations of the competitive system or whether varying degrees of governmental guidance should be taken in connection with the preservation of units necessary to place products into consumers' hands."

He asserted that the need for a War Liabilities Adjustment Act has been established. A sound economy will be necessary after the war, Mr. Nelson added, explaining, "To me a sound economy calls for ample opportunity for small enterprises to enter particular fields and add their imagination, initiative and drive to the competitive struggle to provide more and better goods for all of us at continually lower prices."

"But to me," he continued, "this objective should not involve putting machinery or labor or management brains away in cold storage for the duration of the war."

### More Steps Being Taken To Aid Small Business

NEW YORK CITY—Two new steps to aid small business are underway in addition to WPB's plan to decentralize procurement, announced Sydney Hogerton, chief deputy director of the War Production Board's smaller war plants division, in a recent press conference here.

These steps he revealed as creation of a list of distressed plants that need immediate help to survive, with concentration on them wherever they are able to do war work; and careful examination by the Smaller War Plants Corp. of industry's machine tool requests in an effort to direct equipment to smaller plants in "needier" areas where labor is available and to prevent overloading with facilities areas where labor is scarce.

Future outlook of small business also took a turn for the better in Washington, D. C. where Lou E. Holland, head of the division and deputy chairman of WPB, a few days later declared that "In the last few weeks, \$16,000,000 worth of business was placed with small companies at our suggestion. Some \$18,000,000 worth will be placed in contracts which await signature today, if our suggestions are followed."

His statement lined up with Mr. Hogerton's earlier report on work

of the local WPB in finding contracts for concerns in this area. In it, Mr. Hogerton said that from Jan. 1 to Oct. 1, 1942 the office was instrumental in having drawn up 3,200 prime contracts and 8,000 sub-contracts, mostly in metal working industries, and that in the same period had helped arrange loans through normal banking channels totaling \$88,000,000 in 653 cases.

The average loans ran between \$70,000 and \$80,000, he explained, although quite a few exceeded \$1,000,000.

On the heels of Mr. Hogerton's report, Chairman Holland emphasized in Washington that regional offices of WPB are equipped to advise manufacturers on obtaining war contracts, and urged producers to visit these offices rather than come to the capital.

He further declared that when the smaller war plants division gets into full swing within the next few weeks, enough war work will reach small business to keep thousands of small companies working at peak capacity and even to recall to business life many small companies which had "died" from production limitations and lack of war contracts.

To keep the ball rolling, Mr. Holland explained that he recently stationed a smaller war plants representative with WPB's Office of Civilian Supply to give forewarning of shut-down orders in store for manufacturers producing civilian goods ruled as nonessential by OCS. In this way, he pointed out, small business representatives can look for war contracts to turn over to the civilian industries whenever shut-down orders are issued to them.

"I believe that if the small firms of this country can get somewhere between 12 and 15% of war contracts," he said, "we can have all small war plants capable of handling war contracts busy." Mr. Hogerton, in a statement issued with Howard P. Ingles, new regional deputy director of the division, already had asserted that they would use the Smaller War Plants Division to bring small contractors having the proper facilities into the war-production program, and to offer them engineering help in their problems.

"In addition we will see to it that once a contract has been awarded through SWPD, every manufacturer, prime or sub, carries it out to the satisfaction of the buyer. In this way," they explained, "the small fellow who carries out his obligation will put himself in line for further contracts, and the prime contractors who have been reluctant heretofore to do more subcontracting will be more willing to do so."

### Answer Is Made To FTC Charge on 'Scrap' Refrigerator Paint

VERNON, Calif.—A Federal Trade Commission complaint charging misrepresentation of a product composed of paint lost from spray guns used in painting refrigerator boxes and similar surfaces has been answered here by Jacob Swimmer, accused in the complaint.

The respondent trades in this city as National Lacquer Mfg. Co. and National Titanium Co. His reconditioned product, distributed as "Nitrosol," he has described—misleadingly says FTC—as being "identical in formula and composition to the most expensively made brand of outside white paint."

Admitting that he circulated some of the deceptive advertisements charged in the complaint, Mr. Swimmer at the same time asserts that for approximately eight months he has discontinued this particular misrepresentation and modified others.

Not stopping with a single defense, his answer further points out:

1. Because manufacture of refrigerators, radios, and automobiles has been stopped by present conditions, it is now impossible to obtain materials necessary to produce Nitrosol.

2. Even when those items are produced again, it is doubtful that required materials will be available in sufficient quantities for manufacture of Nitrosol, since many companies are preparing to reclaim and use all waste material themselves.

3. Knowing he will have nothing to sell, and expecting to be entirely out of the paint salvage business after his present inventory has been shipped to customers who prefer this product, the respondent is no longer soliciting new accounts.

Hearings will be held later.

The number of spot welds a machine can make in a given period can be increased by 15 to 40 times if the temperature of the electrode is accurately controlled within a range of 0° to 40° F., depending upon the characteristics of the material being welded.

**MORE Spot Welds WITH**

**ACCURATELY CONTROLLED REFRIGERATION**

### A NEW WAR PRODUCTION MACHINE TOOL FOR

- PORTABLE RIVET COOLERS
- CONDITIONING TOOL AND DIE ROOMS
- COOLANT COOLING ● OPTICAL EQUIPMENT MANUFACTURING ● HEAT TREATMENT ● COOLING ELECTRODES FOR SPOT WELDERS ● MANY OTHER OPERATIONS

ACCURATELY controlled cooling of spot welders is but one of many important ways in which refrigeration can increase war production with existing machinery. To be effective, and to perform its function to the full extent, refrigeration must be accurately controlled. Accurate control is another way of saying Minneapolis-Honeywell... Minneapolis-Honeywell Regulator Co., 2807 4th Ave. S., Minneapolis, Minn.

**MINNEAPOLIS-HONEYWELL REFRIGERATION**  
THE POLARTRON SYSTEM OF FROST-FREE REFRIGERATION

Control SYSTEMS





## "UNTIL I COME BACK"...

We're over 20,000 feet now (the coffee's frozen in the thermos) and that's the Zuyder Zee below. We must be halfway across Holland.

Funny thing what happens to a fellow . . .

Those are the same old stars and the same old moon that the girl and I were looking at last Christmas.

And here I am—flying 300 miles an hour in a bubble of glass, with ten tons of T. N. T.

Somehow—this isn't the way I imagined it at all, the day I enlisted. Don't get me wrong—sure I was sore at the Japs and the Nazis—but mostly, it was the thrill of the Great Adventure.

Well, I know now—the *real* reasons—why I'm up here paying my first call on Hitler.

It's only when you get away from the U. S. A. that you find out what the shootin's really about and what you're fighting for.

I learned from that Czech chap in London. The refugee, the nice old fellow who reminded me of Dad except for the maimed hands. I was dumb enough to ask about it. "I got that," he said, "for writing a book the Nazis didn't like . . ."

Then there was the captured German pilot who screamed and spit when Izzy Jacobs offered him a cigarette . . . how do fellows get that way?

And that crazy Polish pilot—the fellow who rammed the Messerschmitt. After the funeral I learned what was eating him. Seems as how he had a sister in Warsaw who had been sent to a German Officers' Club . . .

I hope to hell Hitler's home tonight . . . light and wind are perfect.

Yes, sir, I've met 'em by the dozens over here—guys warped by hate—guys who have had the ambition beaten out of them—guys who look at you as if you were crazy when you tell 'em what America is like.

They say America will be a lot different after this war.

Well maybe so.

But as for me, I know the score . . . you learn fast over here. I know now there's only one decent way to live in this world—the way my folks lived and the way I want to live.

When you find a thing that works as good as that—brother, be careful with that monkey-wrench.

And there's one little spot—well, if they do as much as change the smell of the corner drug store—I will murder the guy.

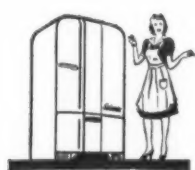
I want my girl back, just as she is, and that bungalow on Maple Avenue . . .

I want that old roll-top desk of mine at the electric company, with a chance to move upstairs, or quit if I want to.

I want to see that old school of mine, and our church, just as they are—because I want my kids to go there.

That's *my home town* . . .

Keep it for me the way I remember it, just the way I see it now—until I come back.



## KELVINATOR

Division of Nash-Kelvinator Corporation, Detroit, Michigan

*Published in the belief that here at Nash-Kelvinator we carry a double responsibility—not only to build the weapons for victory but also to build toward the kind of a future, an American future, our boys will want when they come back.*



## Inside Dope

(Concluded from Page 1, Column 1)

The more flexible the rationing system, the more complicated, or so it seems.

Take the oil rationing system, which was so complicated it nearly bogged down in December. Actually, it is the fairest system yet devised, because it allows for the most variables.

We heard only two "special conditions" complaints on oil rationing. One was the fact that no extra allowance is made for children over four years of age.

"It's the older children," two indignant women told us, "who are forever running in and out of the house and leaving doors open."

The other complaint was that no distinction was made between corner or solitary houses and those protected by homes on both sides.

### Are We All Crooks?

But nearly everyone was hopping mad because it took so long to get the applications "processed" and the coupons "tailored." Some owners of huge mansions actually discovered that they had already used up almost their entire year's allotment before they found out what they had been allowed.

The "tailoring" process took an average of 12 minutes per application. We had more than 10,000 applications, and only volunteer help, so you can see why it took so long.

Also, the oil coupons didn't arrive until the first of December—right smack in the midst of the gas rationing hurly-burly.

Nobody objected to the time it took for applying the formula to determine how much oil the home owner was to get. But the ridiculous number of blanks to fill out when "tailoring" the coupons was unconscionable.

Every conceivable safeguard was taken to prevent misuse of the coupons. The result was to "snafu" the situation so badly that a lot of people didn't get any oil in December. My own water pipes froze twice during that period.

It seems to us that the American people can be trusted a little more. One sure thing is that they resent fiercely the implication that they can't.

### Charm Wins Again

Most of the hell-raisers who come in are women. Fortunately for our side, the chairman of the board is a man who looks like Herbert Marshall (only better) and is twice as charming.

This man was born with a silver spoon in his mouth, and must have liked the taste, because he loves everybody, thinks it's a wonderful world, the customer is always right, and the person whom he is charming at the moment is always the most fascinating person alive.

Women come in with fire in their eyes and high-pitched epithets on their tongues. They go out murmuring softly, with moonlight and stardust in their hair.

You can't tell me that salesmanship isn't still a potent force, and darned useful even in an engineer's war.

### Laugh Here

From "The Cabinet Builder," house organ of the Midwest Mfg. Co. in Galesburg, Ill., come a couple of laughs. We quote:

Judge: "Where is your husband?" Defendant: "He's been dead nigh onto 10 years."

Judge: "But aren't all those youngsters your children?"

Defendant: "Yes, suh. They's mine."

Judge: "But I thought you said your husband was dead."

Defendant: "Yep, he's dead, but I ain't."

And, Postcard from Florida: "Having wonderful time. Wish I could afford it."

Don't forget to get a bunch of bonds, to buy a bunch of bombs, to bomb a bunch of bums.

### New Service Company

Formed in Los Angeles

LOS ANGELES — Refrigeration Maintenance Co. is the firm name under which Louis Gannett and Margorie Richman have obtained a certificate to conduct business at 1277 Cochran avenue, Los Angeles.

### Sales Manager



FRANK HAAG

Mr. Haag has been appointed sales manager of Kold Hold Mfg. Co., Lansing, Mich. He was formerly eastern manager of the company.

## Limits Are Set on Retail Inventories

(Concluded from Page 1, Column 2)

mittee, he said, plans to hold educational meetings with retailers to suggest ways in which they can adjust inventories without disrupting their normal merchandising practices.

Mr. Read said that many merchants may wish to adjust their stocks by means of what he termed "cross-stream" transactions, that is, the sale of merchandise.

Mr. Nelson said that the purpose of the order was to assure smaller stores, particularly those in outlying regions, a better opportunity to compete with large stores in metropolitan areas for a fair share of the limited amount of consumer goods now available.

### EQUITABLE DISTRIBUTION

To supplement the new inventory order, Mr. Nelson urged all manufacturers and wholesalers to distribute supplies of scarce commodities to all customers on an equitable basis so that each will receive his rightful share. The WPB chairman also advises distributors to make special efforts to supply retailers in newly expanded defense areas so that war workers can obtain the goods necessary to satisfy essential needs.

The restrictions of the order go into effect the second quarter of next year—on March 1 for companies whose tax year or quarter begins Dec. 1, on Apr. 1 for companies whose tax year or quarters begins Jan. 1, and May 1 for companies whose tax year or quarter begins Feb. 1.

### BASIS OF INVENTORY

Normal inventory as used in the order is calculated on a formula based on the relation between inventory and sales during the base period of 1939, 1940, and 1941.

According to an interpretation of the order by WPB officials, if a company, for example, had net sales during the second quarter of 1939, 1940, and 1941, averaging \$100,000 and if its inventory at the beginning of each of those quarters averaged \$50,000, then the company would have a stock-sales ratio of 50%. Therefore, if its anticipated or projected net sales for the second quarter of 1943 amount to \$120,000, its normal inventory at the beginning of the quarter would be \$60,000. In addition a tolerance factor (15% of normal inventory in the Mountain and Pacific time zones and 10% in the Eastern or Central time zones) is allowed.

If a store's actual inventory when the limitation order goes into effect exceeds \$60,000 plus the tolerance, it will be limited in the amount of goods it can buy that quarter. However, regardless of the amount of inventory, any store will be permitted to buy up to one-third of the cost of goods sold by it during the preceding quarter.

## Groups Line Up For Debate on 'Layaway' Plan of Bond Buying

(Concluded from Page 1, Column 5)

can Marketing Assn. explained that no specific merchandise commitments were intended, as it would be impossible for the Treasury to keep automobile bonds separate from refrigerator, farm equipment or some other kind of bonds. As to the illiquidity of the bonds, the association pointed out that they were intended primarily for that class of people which regularly constituted the installment buying group and to whom the "first in line" appeal might be effective. It was also noted that the salesmen remaining in industry comprise the older group of men, as the younger have gone into armed service.

It was understood, however, that the Treasury is still unconvinced that such a plan is socially desirable. It has been pointed out in this connection that postwar consumer goods during the period when they will be scarce will flow to consumers in one of two ways—either there will be no price control and the rise in prices will automatically ration the scarce supply to those willing to pay the highest price, or there will be price control and allocation of supply in some manner based on equity and need. In the former case the priority rights attached to a merchandise bond would in reality be worthless and in the latter case the solution of the problem of distributing scarce goods would be hampered by the previous commitments of priority rights to holders of merchandise bonds.

By encouraging the purchase of war bonds now for acquisition of their products in the postwar period, a number of companies already have adopted the plan in its most elemental form. Meanwhile, increasing interest has been indicated in proposals for adoption of the plan on a more advanced basis.

Success of the plan, Mr. McFall believes, depends on coordinating the various proposals and establishing one program that would meet with general approval. This will be the aim of the forthcoming conference, details of which had not been completed at this writing.

## Westinghouse Awards Merit Certificate to Appliance Engineer

MANSFIELD, Ohio—In recognition of distinguished engineering service, William James Russell, manager of engineering for Westinghouse Electric appliance division here, has been awarded the Westinghouse Order of Merit by the company's directors.

A certificate of honor listing his achievements and a bronze medal designed by Rene Chambellan, sculptor, were presented to him by M. H. Smith, vice president in charge of engineering, at a ceremony in this city.

Mr. Russell came to the United States in 1920 from his home in Scotland where he was test engineer at the British Naval torpedo factory at Greenock after several years study of mechanical engineering in the Royal Field Artillery.

He joined Westinghouse at its Springfield, Mass. plant in 1924. Following various promotions and transfers, he was appointed manager of engineering in 1934, taking charge of all engineering and development on electric ranges and household appliances made here. During the present war he has contributed to design and development of ordnance products.

Mr. Russell is a member of the American Institute of Electrical Engineers and chairman of the functional committee for its Mansfield division.

## W. F. Flynn Dies, Veteran of Cordley & Hayes

NEW YORK CITY—W. F. Flynn, for the past 23 years with the sales department of Cordley & Hayes, died suddenly last month in this city. His activities here included membership in the American Legion.

## COOPERATION WINS THE WAR



## WOLVERINE SALUTES MEMBERS OF REMA

REMA—as the Refrigeration Manufacturers Association is popularly known—is composed of fifty-nine member companies, whose twenty-two different kinds of products embrace every operating part and supply in a refrigeration and air conditioning system.

Members of the association are today directing all their efforts to the manufacturing of prime equipment for war use. They are now actively cooperating with various agencies of the government and with other associations in the industry to help the nation make the best possible use of refrigeration and air conditioning equipment in the furtherance of our War Effort.

Meanwhile, they are not losing sight of the importance of providing parts, tools, and supplies for the existing refrigeration systems, that these present systems may be kept up to the highest operating efficiency.

Because the members recognize the new responsibilities they are now facing, they have abandoned "for the duration" one of the best-known activities of their association—the sponsorship of the Annual All-Industry Refrigeration and Air Conditioning Exhibit.

In saluting this progressive association, with its commendable purpose "... to collect and disseminate information of value, to study problems of distribution of manufacturers of refrigeration parts and supplies", we, here at Wolverine, congratulate its noteworthy accomplishments, and wish it success in its new undertakings.



JOHN WYLLIE, JR.  
President, Refrigeration Equipment  
Manufacturers Association

## WOLVERINE TUBE DIVISION

OF CALUMET AND HECLA CONSOLIDATED COPPER COMPANY

Seamless COPPER • BRASS

1413 CENTRAL AVENUE • DETROIT, MICHIGAN



## Refrigeration and Air Conditioning As a War Production Tool

By L. W. Clifford, Sales Development Section Supervisor,  
Westinghouse Electric & Mfg. Co., East Springfield, Mass.

### 5. Units For Electroplating and Anodizing Tanks

In the Electroplating and Anodizing industry, control of the bath temperature is generally an important consideration. Therefore, where relatively low bath temperatures are required, some cooling medium must be applied to the bath to prevent undue rises in temperature.

The tanks in which these processes are carried out are usually equipped with two electrodes connected to a direct current source and immersed in the electrolytic bath. The current enters the first electrode, called the anode, and flows through the bath to the other electrode, known as the cathode.

In electroplating the work to be plated is made the cathode and the plating material, which is made the anode, is carried by the electrochemical action to the work, or cathode, and deposited upon it.

Anodizing is a process which is, in one sense, the reverse of the plating process. In anodizing the work to be treated is made the anode and the tank lining, itself, is the cathode. In the process the surface of the work is oxidized electrolytically to form a corrosion-resisting oxide film.

In electroplating certain types of metal such as copper, gold or tin bath temperatures of 125° F. and above are used and, in the case of

platinum, the temperature will reach 200° F.

However, in electroplating cadmium the bath temperature will be 80°-95° F. in nickel 75°-95° F. and, in the case of silver 72°-78° F. If the bath temperatures are allowed to extend beyond those limits compensating changes must be made in current densities and chemical composition of the bath. Otherwise variations in plating thickness and quality will result.

In anodizing work the bath temperature is held at approximately 95° F. and the treatment time is about 30 minutes at 40 volts.

Electroplating and anodizing tanks, especially for the plating of those metals requiring low bath temperatures and for anodizing are equipped with immersed pipe coils for heating and cooling of the bath. The heating pipe coil uses steam or hot water and the cooling pipe coil uses chilled water from a water chilling refrigeration system. Where close temperature limits are involved automatic controls are used to provide either heating or cooling as required.

Other than the heating supplied from the heating pipe coils in the tanks the principal heat source in the bath is the electrical input necessary to the process. In general, by converting this Kw/hr input into B.t.u./hr. it is possible to arrive at a close estimate of the size of condensing unit and water chiller required.

### Manufacturer Builds Refrigerated Locker Plant For Workers

ALEXANDER CITY, Ala.—A quick freeze locker storage plant has gone into operation here and with its 400 locker capacity, is the largest of its kind in the state.

The plant was erected by the Russell Mfg. Co., textile concern, and is designed to take care of the storage needs, both of vegetables and meat, not only of its employees but of surrounding farmers as well.

The plant ran the gauntlet of priorities before it was completed. If used to normal capacity, the plant here will take care of 500,000 pounds of meat and vegetables in a year's time. It is the experience of similar plants that a normally used locker will be emptied and refilled three times within a year.

The new plant has a killing room as well as a chill room, a salt bin room, a quick freezing room, a smoking room, a locker room and a meat cutting room.

The Russell Mfg. Co. is encouraging its thousands of employees to raise their own vegetables and meat and now these employees have a place to keep their produce at all seasons of the year.

### Insulation From Sugar Cane As Applied In a Government Cold Storage Building



Illustrated above is the manner in which Celotex laminated cane fibre low-temperature insulation is applied to a cold storage room. This particular job was for use in a U. S. naval training station. Asphalt is applied to the blocks at the time of installation.

### New Air Control Units Keep an Old Brewery's Brew at High Quality

DENVER, Colo.—An old brewery, which was producing mild Colorado beer when Indians still roamed the streets of Denver and a river flowed where the downtown district now stands, has adopted the use of the latest modern equipment to guard against poor brews and substandard flavor.

Through the installation of Carrier filtering, ventilating, heating and vapor-removing equipment, the Tivoli Union Brewing Co., Denver, has found it possible to step up production substantially while, at the same time, maintaining peak quality and flavor. The Carrier equipment has been installed in the beer tank room and the Baudelot cooler room of the brewery.

The beer tank room, "coolship," where the hot brew emerges from the main brew house, is equipped with heating, ventilating and filtering equipment with a capacity of 85,000 c.f.m. of 100% outdoor air. Equipment furnished includes a heat diffuser with spreading ducts mounted at the rear of the room, with glass wool filters and heater coils of the Aerofin non-freeze type. Using five pounds steam pressure from the brewery boilers, the diffuser provides heat to warm air from 20 to 100° F. temperature. Heat applied quickly takes up moisture from the hot brew, equalizes temperature and cools the brew to the proper point without loss of its quality.

The Baudelot cooler room, located above the beer tank room, is equipped with a Carrier system to handle 7,500 c.f.m. of filtered and heated outdoor air. A heat diffuser, similar to the one in the beer tank room, removes vapor from the cooling beer as rapidly as it accumulates. Warm, moist air is exhausted through a grille opposite the heat diffuser location.

### Air Control Systems Cut Disease Spread, English Say

RICHMOND, Va.—Mechanical ventilators which keep factory air purified during blackouts in England have overcome the spreading of infectious diseases, Dr. Edward Rowland Alsworth Merewether, senior medical inspector of factories for the British Ministry of Labor and National Service, told Richmond doctors and industrial representatives in a talk here.

### Cane Fibre Insulation Has Been Applied In Army Cold Storages

CHICAGO—Celotex, the laminated cane fibre refrigerator insulation recently developed by the Celotex Corp. has been used by the Army and Navy for the construction of cold storage facilities at seven training centers, bases and air fields.

Typical of the installations that have been made is one at a large naval training station. Here, 650,000 board feet of 2-inch and 3-inch Celotex were used in the construction of refrigerated storage rooms for fresh meats and other perishables. Refrigerator equipment was supplied by York, and refrigerator doors by Jamison. The Walter Butler Co. was the general contractor, and Whitehouse & Price were the architects.

Celotex is manufactured from the fibres of Louisiana sugar cane. It has a conductivity of 0.3 B.t.u. per inch, per square foot, per hour, per degree F.

Celotex is made by weaving and felting can fibres in selected lengths and thicknesses into ½-inch insulating boards of a special low density. The individual fibres are sterilized, waterproofed and protected from dry rot and fungus growths by the patented Ferox process.

The ½-inch boards are laminated together with moisture-resistant special asphalts between layers. An additional coating of asphalt is then applied to the outer surfaces.

Puncture of the outside membrane exposes only the first ½ inch thickness of insulation to moisture penetration. The company believes this characteristic is valuable for emergency wartime construction.

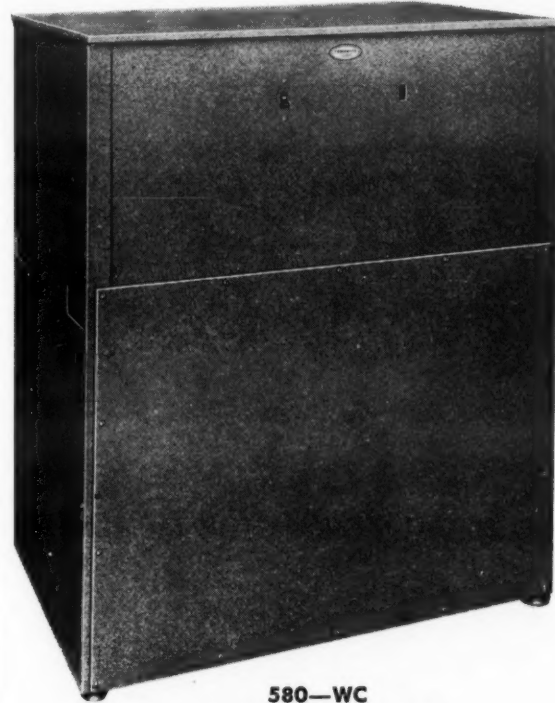
### Dehydrated Foods Get The Stiff Sniff From Dogs; Frozen Variety Gobbled Up

St. LOUIS—Owners of pets have been hard put since the war to find suitable feed for their animals because of shortage of canned dog foods. Dehydrated substitutes have not found favor with the pets, according to many owners.

Stix, Baer & Fuller, St. Louis department store, brought sunshine to both owners and animals with a large advertisement announcing frozen dog food in one-pound packages.

"You can buy a week's supply," the advertisement stated, "because it is frozen. Just keep in your refrigerator."

*Mr. Dealer:* HERE'S HOW TO GIVE  
YOUR WAR EFFORT...



580—WC  
SPOT WELDER COOLER



To those dealers who have not been contacting war plants and who may not have the latest information on priority requirements, we will be glad to send complete information. Simply address our Sales Department.



... A SHOT IN  
THE ARM!

DEALERS who want to increase their value to our Country's war effort and at the same time boost their sales, will find the Temprite Self-Contained Spot Welder Cooler an ideal year 'round sales item.

War plants now using the Temprite Spot Welder Cooler enthusiastically report that it "increases production," "reduces rejects" and "improves quality of workmanship" far beyond their expectations.

Positive temperature control of the spot welder tip insures a uniformity of welded joints, prolongs the life of the copper welding tips and permits welding operations to be carried on continuously.

While the use of a temperature control unit improves the operation of all types of Spot Welders, it is of particular importance to war plants using Spot Welders on aluminum. The peculiar structure of aluminum requires that the welder tips be maintained at a constant controlled low temperature at all times, if satisfactory welding is to be obtained.

The Temprite Spot Welder Cooler is a self-contained cabinet assembly completely equipped with all of the necessary parts including a condensing unit and water circulating pump. It is finished in green Krinilac lacquer and is ready for immediate installation.

Users say the Temprite unit is an important aid to war production and we urge you, Mr. Dealer, to assist the war effort by bringing this necessary item to the attention of the war plants in your area.

Write or wire TODAY for full particulars.

**TEMPRITE PRODUCTS CORP.**

Originators of Instantaneous

43 PIQUETTE AVENUE



Liquid Cooling Devices

DETROIT, MICHIGAN



## Department Store Meeting Jan. 11-15 Is 'War Conference'

NEW YORK CITY—A 5-Day "War Conference" will be held by the National Retail Dry Goods Association, during the week of Jan. 11 to Jan. 15, at the Hotel Pennsylvania in New York—this national gathering of retailers supplanting the traditional annual convention, it was made known today by Lew Hahn, general manager of the association.

Instead of having numerous technical group sessions, running at the same time during morning, afternoon and evening of each day, these special divisional gatherings, reduced in number, are scheduled for Monday and Friday—serving as curtain raisers and follow-up or rebuttal meetings, to the main Conference general sessions.

"The Effects of the War on Retailing During 1943" will be the subject of the opening general session, on Monday night, when Frank M. Mayfield, NRDGA President, will make his opening address. This session will set the pattern for more detailed discussion in similar open sessions to follow during the next three days of the Conference.

Subjects for Tuesday's general meetings include "Manpower," "Customer Services" and "Limitation of Inventories." This last Government restriction will probably, by then, be in operation, and will present many intricate problems to both the large and small store.

"Taxation and Credit," "Transportation," and "Price Regulations" will occupy the attention of delegates at the three general sessions slated for Wednesday, and a novel feature is planned in the way of "Informal Sessions" for Wednesday evening.

A general session on Thursday will be devoted to "Post War Planning," a subject that is receiving wider and more intensive thought and study as the war progresses. "Merchandising and Sales Promotion" will be the Thursday afternoon general session subjects. On the first subject, progressive merchandise shortages and changes in the nation's spendable income will probably dominate the discussion, while sales promotion men will want to determine the position of sales promotion during the coming year.

## 'Refrigeration & Health' Handbook Available

MANSFIELD, Ohio.—"Electric Refrigeration and Wartime Health," a handbook of facts needed to understand the elements of electric refrigeration and its relation to the wartime health program, has been published here by the Home Economics Institute of Westinghouse Electric & Mfg. Co.

One of a series of new educational materials arranged by Westinghouse, "Electric Refrigeration and Wartime Health" has been reviewed with the Council of Foods and Nutrition of the American Medical Association. Nutrition facts presented in the book were similarly reviewed by the Nutrition division of the Office of Defense Health and Welfare Services.

A foreword by Mrs. Julia Kiene, director of the institute, opens the handbook. Recommendations for food buying and storage, and hints on care and use of home refrigerators follow.

## Dealer Tells How Service Dept. 'Absorbed' Him



## VAN DOMELEN'S

In A New Role But With The Same Old Spirit  
Wishes You All A MERRY CHRISTMAS...

### LAST YEAR:

Just about this time we had a flock of conflicting emotions. We were still smarting from the whip-lash of the sneak attack on Pearl Harbor. We were pretty busy with the holiday rush of business, chasing that almighty dollar pretty hard and catching up quite a few of them, too. Our sales force were weary and fatigued, physically, but mentally cheered by their record breaking sales of Norge and Philco appliances. Business was good and our delivery trucks burned up a lot of gas making "must" deliveries in time for Christmas. And over by the railroad tracks four of the boys were "soaping" off the grease and grime after a day's toil repairing heavy industrial electrical equipment. We were just a bit bewildered by the turn of events but doing business as usual.

### THIS YEAR:

Well, folks, it's all different now. We're in a new and larger home. The once busy merchandising establishment of Van Domelen's has been absorbed by that little "four-man" crew that used to toil by the railroad tracks. Some of the old gang are with the Armed Forces but there are now twenty-nine of us and we don't wear white collars but overalls; and many of the "gang" are girls who are doing their bit with the rest of us to win the war. We're making emergency calls, day and night, on major war jobs we're helping to keep 'em rolling in factories and mills, keeping the pumps going in our mines. We have no more conflicting emotions but a single-track mind with one objective, Victory and Peace. Yes, we still have a few home appliances around and folks with priorities choose one, pay us and take 'em home. Too busy to sell, we still try to serve, for habit is a lingering and persistent thing.

### NEXT YEAR:

We're ready now. We know where we're going and we are geared for service. Come what may, we are prepared for the trials and tribulations which are the price of victory. We still burn-up when we "remember last December" but we're carrying on everyday and many nights doing something about it. We won't make a lot of money and we don't care. After listening to Captain Eddie Rickenbacker talk yesterday we are more convinced than ever that we've got a big job to do, sacrifices to make here at home and that the material things of life don't amount to much. So we're going ahead, doing our job, paying our taxes and buying war bonds and liking it and proud of being Americans in a land where we can still say... and mean it A Merry Christmas and Victorious New Year.

### FROM ALL OF US TO ALL OF YOU

IVAN SZYMUR  
RAYMOND "BUD" ROEH  
JOSEPH JANQUET  
JOHN LOSKOT  
HAROLD NORDST  
ARNOLD HOSTVEDT  
CLARENCE GRENER  
LEONARD KNUITSON  
JOHN KANA  
WARREN SEYMOUR  
JACOB VAN DOMELEN  
EARLE LINDSTROM  
FELIX COLLARD  
TOM SMITH

### With The Colors



MARY NELSON  
MYRTLE VANESS  
VIOLETTE ROEHL  
DOROTHY SUNDOQUIST  
LAVENNE VANESS  
VALADA GROSLEAU  
MARIE LA POINTE  
MARGARET FOUCAULT  
HENE CONARD  
ANN KIRCHNER  
VIOLETA BARTL  
MARGARET STAQUET  
HENE LE MAY  
GENEVA LOEWENKE

The above newspaper advertisement used by Wm. Van Domelen & Co. of Menominee, Mich. tells an interesting and "folksy" story of the transition of an organization that once concentrated much of its efforts on merchandising, and now is emphasizing the servicing and maintenance of the products it once sold. It is worthy of the study—and perhaps copying by—others who have made a similar transition.

## Dealers Band Together To Train Salesmen, Older Men For Service Jobs

DENVER — Obtaining sufficiently experienced service men, which was once a problem, is being solved by 25 Servel Electrolux refrigerator dealers in Colorado and Wyoming by training dealer salesmen and older men excused from military service to be mechanics.

The 25 dealer groups met in Denver at the Modern Appliance Co. (western states dealership for service headed by S. F. Bales) for a service meeting given over to ways and means of procuring sufficient men for training.

The five-day program was presided over by service men from the Servel factory in Evansville, Ind. taking up in turn the questions of whether to remain in business, how to service repair and reconditioning profitably, methods of establishing service prices, quick training methods, and the development of service crews from "within."

Of the 25 dealers and sub-dealers, at least 20 are attempting to keep up contracts with refrigerator customers throughout the war, according to Distributor Bales, which means continuance of warranty service and general repair work.

"Most of our dealers have attempted to cut their overhead substantially," he pointed out, "by

closing up expensive main street showrooms and moving into buildings suitable for shop work and a headquarters. In all cases, however, it has been difficult to obtain tools, shop equipment and the men to operate them."

Dealers fortunate to have men for training brought them to the Denver school, which consisted of a short course in general gas refrigeration maintenance and repairs with the emphasis on preventative service, eliminating the need for more strenuous repairs thereafter.

### W. J. Logan To Direct WPB Compliance

WASHINGTON, D. C.—Appointment of William John Logan, formerly vice president of the Central Hanover Bank and Trust Co., New York, to be Director of WPB's Compliance Division was announced recently by J. A. Krug, Deputy Director General for Distribution.

At the same time, Mr. Krug announced that Walter H. Foster, of WPB's Legal Division, will serve as Chief Compliance Commission, with headquarters in Washington.

## Gas and Oil Burning Water Heaters To Be Made Only For War Projects

WASHINGTON, D. C.—Gas fired and oil burning water heaters were added Dec. 21 to the list of products which will be manufactured next year only for use in war housing or other war projects by limitation orders restricting production and limiting the amounts of metal and metal alloys that may be obtained by the industry in 1943.

Production of metal tank jackets and metal tank supports is suspended and the installation of metal tank jackets is prohibited with certain minor exceptions.

Civilian needs for replacements of gas fired water heaters in 1943 and thereafter must come out of existing stocks. Necessary replacements may still be made for some time in the future, however, since inventories of finished equipment are comparatively large at present.

Officials of the Plumbing and Heating Division suggest caution on the part of civilian consumers in replacement of their gas fired water heating systems. Coal heaters should be substituted, they advise, because of the present critical situation in the production and consumption of gas for household purposes.

Two new limitation orders were issued. L-185 deals with gas fired and oil fired water heaters while L-199 prohibits manufacture and installation of metal tank supports and provides a simplification schedule to govern the manufacture of black iron and galvanized iron range boilers and expansion tanks.

Following is a brief summary of the principal provision of L-185:

1. Prohibits manufacture of gas fired and oil fired water heaters except for War Housing.
2. Prohibits manufacture of solar water heaters.
3. Restricts the amount of metal used in the production of coal fired water heaters to the amount of metal used in the corresponding calendar quarter of 1941.
4. Restricts the amount of metal used in the production of indirect water heaters to 50% of the amount of metal used in the corresponding calendar quarter of 1941.
5. Prohibits the manufacture of metal jackets for all direct fired and indirect domestic water heaters with two minor exceptions.
6. Prohibits the use of copper or copper base alloy in the manufacture of direct fired and indirect domestic water heaters except for controls and safety devices.
7. Permits the use of copper in making repairs to existing direct fired and indirect water heaters in conformity with the restrictions prescribed in Conservation Order M-9-c as amended. Return of all replaced copper scrap to scrap dealers is required under provisions of L-185.
8. Restrictions enumerated in Items 1, 2, 3 and 4 above do not apply to the manufacture of water heaters for Army, Navy, Coast Guard, War Shipping Administration or the Maritime Commission.
9. Copper or copper base alloy is permitted in the manufacture of water heaters produced under contract for use in laundry, bakery, or hospital projects or overseas services of the Army, Navy, Coast Guard, War Shipping Administration or the Maritime Commission, and also when the water heaters are a part of the equipment of aircraft and vessels other than pleasure craft.
10. Provides for the manufacture of repair and replacement parts, restricting the use of metal in any

quarter to not more than the amount of metal used in such production in the corresponding quarter of 1941.

The main features of L-199 are described in the following summary:

1. Prohibits manufacture or installation of metal tank supports with three minor exceptions.
2. Prohibits manufacture of metal tank jackets with three minor exceptions.
3. Prohibits installation of non-ferrous metal, stainless steel or monel-metal tanks with two minor exceptions.
4. Prohibits the use of copper or copper base alloy in the manufacture of plumbing and heating tanks with two minor exceptions.
5. Permits the use of copper in making repairs to existing non-ferrous tanks in conformity with the restrictions provided in Conservation Order M-9-c as amended. Return of all replaced copper scrap to scrap dealers is required under L-199.
6. Provides specifications and simplified practices for the manufacture of black iron and galvanized iron range boilers and expansion tanks.
7. Provides for the manufacture of repair and replacement parts but restricts the use of metal in any quarter to not more than the amount of metal used in such production in the corresponding quarter of 1941.

The simplification schedule eliminates 144 varieties of iron range boilers and eight varieties of expansion tanks. The direct saving of iron and steel which this represents is estimated at approximately 13,000 tons a year. A probable additional net saving of about 65,000 tons is expected to result from stoppage of non-essential production of gas and oil fired water heaters.

Both orders require that manufacturers of restricted products in each instance must execute and file a report on Form PD-726 not later than 20 days from Dec. 19. Monthly reports will be required on Form PD-725 on or before the fifteenth day of each month, beginning in January. Accompanying the two limitation orders (L-185 and L-199) are revocations of Schedules VII and IX of Limitation Order L-42. The major provisions of Schedule VII are contained in the new orders. Schedule IX is revoked because L-185 stops production of direct fired gas storage water heaters and incorporates the provisions of that schedule as far as applicable.

## Heacock To Head Up Priorities Control

WASHINGTON, D. C.—J. A. Krug, deputy director general for distribution, has announced the appointment of B. C. Heacock, Chairman of the Executive Committee of the Caterpillar Tractor Co., as Director of the Priorities Control Division of the Distribution Bureau.

Mr. Heacock's division is charged with the responsibility of integrating the Production Requirements Plan, and the priorities system as a whole, with the Controlled Materials Plan; implementing determinations of the Requirements Committee; processing applications for special and emergency ratings; and clearance of War Production Board orders.

Other new appointments to the bureau were those of Leonard O. Zick, Assistant Deputy Director General, and David Novick, Director, Controller Division.

Send For These  
Bulletins

Bulletins MU-182 and MU-183 contain information that is necessary in the selection of the right motor for the job. They will be sent upon request.



# Wagner MOTORS

ARE AVAILABLE FOR ALL OF YOUR EQUIPMENT USED IN WAR WORK!

Wagner Electric Corporation



6441 Plymouth Avenue,



Saint Louis, Mo., U.S.A.

### FIELD ENGINEERING SERVICE

Wagner maintains 25 branch sales and service offices conveniently located throughout the United States. Each one of these branches is manned by trained field engineers who are ready to assist you in solving your motor application problems.





## Relation of Refrigeration to Dehydrated Food Processing

### These Foods Are Still Perishable' Says Officer Of Quartermaster's Research Laboratory

NEW YORK CITY—Refrigeration may have a part to play in the dehydrated food program claims Lieut. Matthew E. Highlands of the Subsistence Research Laboratory, Chicago Quartermaster Depot, in a paper called "The Present Status of Dehydration" presented here recently before the 38th annual meeting of the American Society of Refrigeration Engineers.

Stressing that application of refrigeration is relatively new to dehydration, he names storage and the actual food processing as two steps of dehydration where refrigeration might be applied.

"One thing which should be borne in mind is the fact that dehydrated foods should be classed as perishable items, although the rate of deterioration probably is slower in foods preserved by this method than many others," he advises.

Lieut. Highlands admits that there is some indication that certain dehydrated foods should be stored at cool temperatures, but he adds that, "Our knowledge of the proper storage conditions of dehydrated foods is far from complete."

In regards to food processing, he points to preparation of blood plasma by a combination of refrigeration and dehydration, making possible large scale production of the substance. It is entirely possible, he declares, that some similar method may be applied to the dehydration of fruit and vegetable juices.

#### Cooling In Processing

"In this particular field the refrigerating engineer has an opportunity to exercise his ingenuity in the construction and development of plant scale equipment for dehydration of articles such as various citrus fruit juices," he challenges.

Developing further his remarks on storage conditions, Lieut. Highlands explains that the keeping quality of many dehydrated foods is enhanced by storage at temperatures at or below 50° F. In fact, he adds, such food has "the especial advantage of storage at extremely low temperatures without difficulties which may arise when foods preserved by other methods are stored at freezing temperatures." Drawing an example from Army use he explains that even canned foods when stored under arctic or sub-arctic conditions may present real trouble in thawing and preparing for the mess.

#### Storage Problems Later

He also points out that if dehydrated food is readily accepted by consumers after the war there may arise need for adequate storage facilities involving refrigeration for the warehousing of certain items.

Explaining that research is being carried on in this field but that answers cannot be found over night, he says, "It is in the field of storage that the refrigeration industry can be of aid to us because of its broad knowledge of storage conditions for other food-stuffs."

To report on "The Present Status of Dehydration," Lieut. Highlands lists those foods now used by the Army in dehydrated form. They include apples, beets, cabbage, carrots, whole eggs, whole milk, skimmed milk, onions, white potatoes, white potato shreds precooked, sweet potatoes, turnips, tomato juice cocktail, cranberry juice cocktail, and dehydrated pea and bean soups.

"Among other dehydrated items which are being purchased in smaller quantities, or which have been examined and found satisfactory," he states, "are cranberries, baked beans, cheese, rice pudding, prune and apricot powder, fruit spread, and hominy."

It is obvious to most of us, declares Lieut. Highlands, that dehydration offers certain advantages to the Army as a means of preserving foods, particularly at this time. Among these he lists an actual saving of weight; a saving of cubage or cargo space; conservation and saving of metals necessary to the war effort; prevention of losses due to spoilage arising from lack of proper storage conditions; and the

low-temperature storage advantage previously explained.

Lieut. Highlands points out however that use of dehydrated foods by armies and fighting men is not new to this war but goes back many years.

The dried fruits and grains eaten by ancients could be considered an application of dehydration, he declares. He further cites the limited quantities of dried foods used by the Union Army during the Civil War and the dried meats and vegetables used in the Boer War, and reveals that in World War I the United States is reported to have shipped overseas a total of 8,903,157 pounds of assorted dehydrated vegetables and soup mixtures.

"Germany in 1898 had three small dehydration plants," he continues, "in 1916 she had 814 dehydration plants; and by 1917 this number had risen to 1,900. At that time the United States had about only 25 dehydration plants in operation," he adds.

#### Use by Germans

The number of German plants existing today is not known, Lieut. Highlands explains, but we are informed that the Germans used a large amount of dehydrated foods when invading the Scandinavian countries and more recently, for the North African campaign.

Dehydration itself is "an ancient means of food preservation which man has copied from nature," he maintains. At the same time, Lieut. Highlands calls to attention an important difference between the meaning of the terms "dried or evaporated" and "dehydrated" foods.

"Dried or evaporated foods," he contends, "... may be defined as foods from which much of the water has been removed under semi-controlled or uncontrolled conditions, with or without the application of artificial heat.

"From a practical standpoint," he continues, "dehydrated" foods may be defined as those from which the water content has been largely removed under controlled conditions of temperature, air velocity and humidity. Furthermore," he states, "we expect these dehydrated foods, upon reconstitution, to resemble the original product closely in appearance, odor and flavor.

"Equally important is the point that dehydrated foods have a relatively low moisture content," he explains. "Depending upon the food-stuff, this may vary from less than 1 to 8% of moisture." He also points out that there is a parallel between dehydration of foodstuffs and the dehumidifying of air in air conditioning.

Using apples as an example of moisture content, Lieut. Highlands reveals that dried or evaporated they contain from 23 to 24% moisture and can be produced by sun drying or through application of artificial heat. On the other hand, he continues, dehydrated apples called for in Army specifications should contain not more than 3% moisture, and must be produced by use of vacuum dehydrators in the last stages of dehydration.

Generally speaking, dehydrated foods, because of more accurately controlled production and specifically because of their lower moisture content, when properly packaged and stored will keep for longer periods of time without undue deterioration than will "dry" or evaporated foods, he concludes.

#### Methods of Dehydration

According to Lieut. Highlands, one of the earliest attempts at controlled dehydration is reported by authorities in connection with the construction of a drying device about 1795 in Europe. "This was essentially a heating unit or stove surrounded by trays on which materials might be dried," he says.

Today there are many types of dehydrators, Lieut. Highlands remarks. He names and gives qualities of five most generally employed by the industry:

1. Cabinet dehydrator: simplest type and probably one of the least expensive to construct.
2. Tunnel type: probably the great-

est number of dehydrators operating in this country today are a modification of one of several varieties of the tunnel type.

3. Drum dehydrator: may be operated openly in the air, enclosed in an inert gas, and in rare instances within a vacuum chamber. Type of foodstuffs dried on this type limited somewhat to soups, milk and specialty items such as tomato juice cocktail.

4. Spray dehydrator: success obtained in dehydrating milk and eggs here warrants further research in case of liquid foods, conceivably vegetable juices provided initial solids' contents are increased prior to the spray drying operations.

5. Rotary cylinder dehydrator: limitations include the large amount of breakage and reduction in particle size that results from tumbling of the food during the process.

Vacuum drying, he states, is one of the most expensive methods, but one which produces among the finest and best quality products.

#### Many Problems to Solve

In concluding his paper, Lieut. Highlands writes "We should all keep in mind that dehydration, as we know it today, is technologically young. We are faced, among other things with the following problems:"

Developing of a suitable packaging and packing without using strategic materials vitally needed in other phases of the war effort. Satisfactory containers for the perishable items should be moisture-vapor-proof; waterproof; insect-proof, vermin-proof; and in certain instances gas-proof, he explains.

An "entirely inadequate" present knowledge of the behavior of materials being dehydrated.

A "far from complete" knowledge of the proper storage conditions of dehydrated foods.

The fact that "We are just beginning to get some indicative results ... on the effect of dehydration on minerals and accessory gross factors in foodstuffs."

Modification of certain preconceived ideas with regard to food preparation when handling and preparing dehydrated foods for large scale feeding operations.

Finally, he lists problems arising from possibilities of insect infestation.

### Honeywell Opens Plant For Electronic Devices

CHICAGO—Greater production of electronic devices for America's war machine were made possible with the opening of new facilities of the Minneapolis-Honeywell Regulator Co. here recently.

The plant is the first to go into volume production of new electronic devices for military aviation and other uses, which were developed and are being custom-made in the company's other factories, said H. W. Sweatt, president. Adapting the operation to mass production methods required the skill of more than 300 engineers, it was stated, who did the job in three months.

Electronics, a relatively new science, when applied to the operation of precision equipment, reduces the possibility of human error and steps up the speed of operations with greater accuracy, decisive factors in modern warfare, explained Sweatt.

### Hallstrom Renamed Philadelphia Electric Association Head

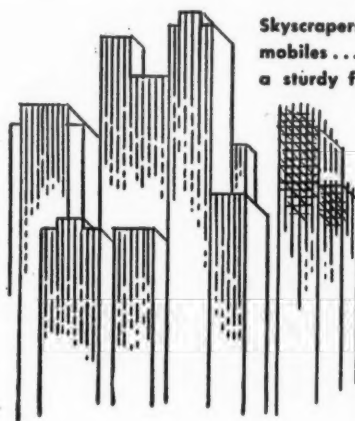
PHILADELPHIA—A. L. Hallstrom, vice president of Graybar Electric Co., Inc., has been re-elected president of the Electrical Association of Philadelphia for 1943, the board of governors here announces. This marks the fifth consecutive time in which Mr. Hallstrom has been named to serve the one-year term.

Other officers re-elected for the coming year are vice president, Howard L. Miller, president of Utilities Engineering Co.; treasurer, Philip H. Ward, Jr., president of Ward Electric Co.; and secretary, Robert J. Moran, chief of Electrical department of the Middle Department Rating Assn.

### Bucher Directs Dayton Rubber Co. Purchases

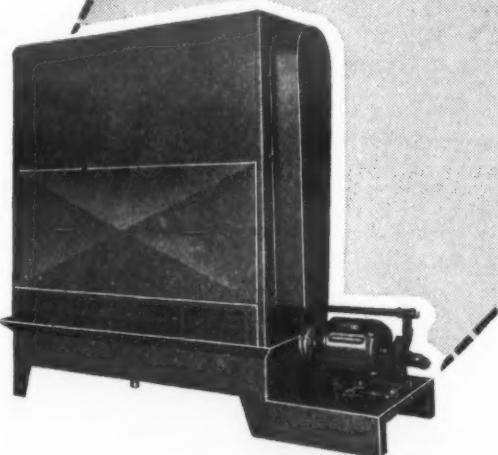
DAYTON, Ohio—C. D. Bucher has been named director of purchases for the Dayton Rubber Mfg. Co. here, announces R. L. Wetzel, advertising director. His appointment follows resignation of J. C. Cunningham.

Dayton Rubber's new purchase director was graduated from Ohio State university in mechanical engineering and is a past president of the Akron branch of the National Purchasing Agents Assn. Previous business record includes 15 years with two Akron rubber companies as purchasing agent and engineering materials buyer.



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## Refrigeration Will Help Win the War

### Share the Misery

**P**RESIDENTIAL stooge Harry ("Praise the Champagne and Pass the Caviar") Hopkins had his signature over a grim magazine piece recently. In a threatening tone it warned that no man should be allowed to determine what he would do for the war effort—thus implying that we are all slackers, or that we are too dumb to figure out how we can best contribute to the winning of the war.

"The people," according to Hopkins, "want something done about John Doe and Jane Roe, who are letting their neighbors make all the sacrifices."

#### 'SHARING THE MISERY' IDEA GAINS EMOTIONAL ACCEPTANCE

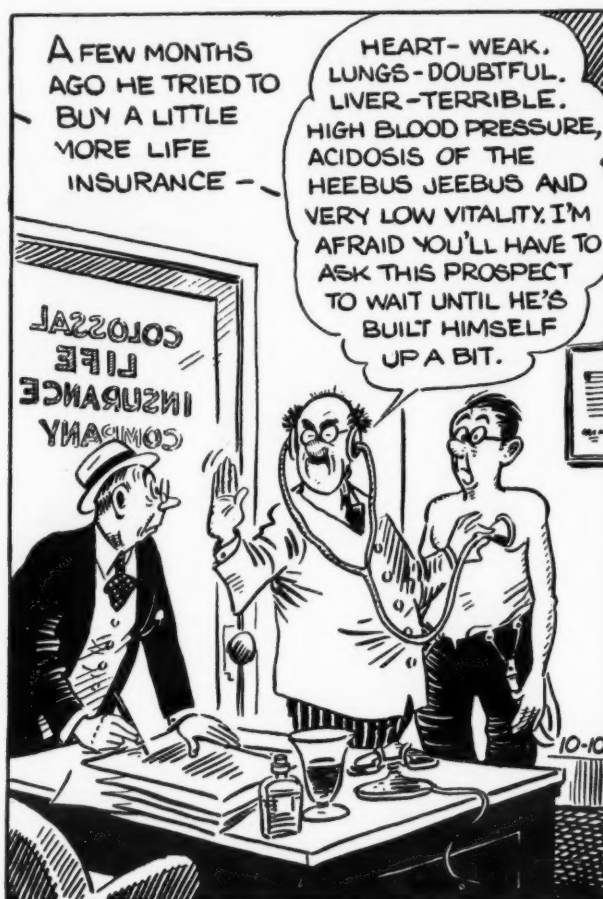
Unfortunately, we're afraid that Harry is partly right. Even allowing for the fact that he is a professional social worker (a militant belief in "sharing" is an occupational disease of social workers—and understandably), it is probably true that there is a strong undercurrent of emotion running through the country in favor of beating everybody down to the same level—and the more miserable the level, the better.

This is not a new phase of American history. We have recurring hair-cloth-and-ashes periods in which the people seem to feel that one's neighbors should do penance for our sins. We have had the Burning of the Witches, the Ku Klux Klan, the Black Legion, and we have had Prohibition.

All true Americans should examine this new Share-the-Misery program well before falling into line. It is a mood that can lead to disastrous consequences—such as a new Prohibition law, or twentieth-century witch-burning.

Today's "my neighbor has got to suffer more" attitude is a natural, of

## They'll Do It Every Time By Jimmy Hatlo



course, for Harry Hopkins and his crowd. It is the old New Deal levelling movement in a new dress. Huey Long used to call it "Share the Wealth."

It is an emotion which is perennially easy for politicians to capitalize upon. The Bible has a word for it: Envy.

The \$25,000-dollar salary limitation is a perfect example of this emotion working. Shamefacedly, we confess that we felt a little secret tingle of pleasure when first we heard about it. That was Envy working, an ignoble feeling of which we heartily repent.

Actually, the Treasury Dept. admits that it will lose money on the deal because personal income taxes are so high in the upper brackets that the Treasury can take out more at those levels than it can get which such income reverts to the corporation which formerly paid the big salaries.

Why is such a rule made, then? To make people who earn less "feel good" (and incidentally, to make the Administration politically more popular).

#### SADISTIC TENDENCIES SHOULD NOT BE ENCOURAGED

Now, let's take rationing. Sure, it's necessary in wartime when and where shortages actually exist. But where imposed merely to make some unlucky people feel better about their own misfortunes, or to "make 'em suffer," we're on dangerous ground.

Last summer we heard a Texan and a New Yorker arguing over whether or not gas rationing should be extended westward (this was before the Baruch Report on Rubber).

"Even if you have an oil well in your back yard," argued the New Yorker, "you should be forced to make the same sacrifices as the rest of us."

"You mean, then," answered the Texan, "that if I break my leg, you and every other fellow in this room should be forced to break your leg and their legs—so we can sacrifice equally."

This *reductio ad absurdum* can actually be seen and heard in other forms. A good many of us have oil-heated homes, and are suffering from a succession of colds because we've been living in 65° temperatures. But surely we shouldn't expect those fortunate coal-users to risk pneumonia merely because the wrong number came up for us.

Rationing for rationing's sake has proved exceedingly popular in England,

and it may well achieve popularity here, too, if coupons gradually replace money as a medium of exchange.

That situation, of course, is the ideal of the Communists. "From each according to his ability—to each according to his needs." The only trouble is that the system won't work very long, as Russia found out. The hard workers get tired of carrying the drones on their backs.

An incentive system may breed envy, but it is the only method of raising the standards of all. A rationing system may be popular, but it always results in lowering living standards, because it merely distributes, never creates.

#### LET'S NOT GET TO LIKING RATIONING TOO WELL

Hence, while good-humoredly accepting rationing where necessary to keep the nation healthy and working, let's not get to liking it too well. People should still earn the good things of life, and not have them handed out on a silver platter by a benign government which has merely taken them away from somebody else.

To return to Harry the Hop's statement, let's pause before demanding that John Doe and Jane Roe sacrifice the same things we're sacrificing. Maybe they're sacrificing more, in their own way.

Let's check this "share-the-misery" emotion before it leads us headlong into Prohibition, blue laws forbidding a man to kiss his wife on Sunday or smile on Tuesdays and Thursdays, lynchings and fiery cross burnings, and an eventual mass degradation of living standards until we all wallow in the same mud hovels.

In America we didn't used to teach little boys that they should grow up to earn the same wage as every other man, or that they should not win a footrace because it would make the losers feel bad. We used to teach them that someday they could grow up to be a millionaire, or President.

That's the spirit that built America, and made America strong. It's the spirit that has won all our past wars, and will win this one.

This spirit is the spirit of individualism, the spirit of competition. It's positive, not negative. Let's not trade it for mob rule and mass debasement.

## LETTERS

### THE NEWS IS APPRECIATED

Pacific Scientific Co.,  
25 Stillman St.,  
San Francisco, Calif.

Editor:

We have been highly satisfied subscribers of your most excellent journal for some time at each of our three offices—namely, 25 Stillman St., San Francisco; 1915 First Ave., So. Seattle; and 1430 Grande Vista Ave., Los Angeles.

Won't you be good enough to check up the status of our subscription and see if it would not be possible to make them all run concurrently so that we could take care of all three at once, whether or not there would be any saving.

We cannot close this letter without telling you how much we admire your work. As Pacific Coast representatives for the Alco Valve Co., Henry Valve Co., White-Rodgers Electric Co., etc., we have been closely associated with the fields you cover for many years and we know of no paper that compares with yours. Furthermore, we are deeply grateful for the work you have done in trying to obtain more recognition for the truly critical needs of the refrigeration in these difficult times.

D. HANSON GRUBB, Vice President.

### REBUILT REFRIGERATORS

Electrical Testing Laboratories, Inc.  
2 East End Ave.  
New York, N. Y.

Editor:

A dealer in electrical merchandise in Mexico City has written us requesting the names of several American organizations which might provide him with rebuilt refrigerators, washers and cooking ranges whether operated by gas, oil, or electricity. We have sent him the names of several concerns here in New York City but we would appreciate it, and I am sure he would be deeply grateful, if you might be able to supplement the list with the names of any other concerns which might be interested in his business. His name is: Mr. J. Canchola, P.O. Box 136, Mexico City, Mexico.

GORDON THOMPSON,  
Chief Engineer

### 'THE FORGOTTEN SERVICE MAN'

1523—6 Ave.,  
Bradenton, Fla.

Editor:

Do you recall an advertisement, picturing a uniformed service man sitting on his comfortable chair, studying service notes. Apparently, he had all the time in the world for the copy carried the caption, "The Forgotten Service Man."

I would be highly pleased to learn of his address, as we need him very badly.

If you think some of the boys will get a laugh out of this print it.

We really need laughs these days. The magazine keeps me abreast of happenings in the industry and that is a valuable asset.

A. R. POOL

### WIDE READERSHIP FOR NEWS

Associated Refrigeration Service  
3829 Broadway, Oakland, Calif.

Editor:

For a long period we have been subscribers to your publication and read it each week with increasing interest. Not only is it read by our management, but by each man in our employ.

R. B. BAKER, Manager



## The Priorities Quiz

(AIR CONDITIONING & REFRIGERATION NEWS, with the aid of a man who is actually engaged in handling much priorities work, will attempt to answer questions from readers about priorities problems. The editors will not guarantee to answer all questions, nor can they guarantee that the answers will be legally perfect, but an effort will be made to provide a guide to correct procedure wherever possible.)

### Ratings Under Revised Chrome Steel Order

Q. A recent amendment to M-21-D, the Chrome Steel Order, changes the restrictions on use from A-1-k or higher. Does this mean that in our manufacturing operations we may not use Chrome Bearing Steels except to fill purchase orders carrying AA-5 or better preference ratings?

A. No, it does not. The order as amended, prohibits you from using any chrome bearing steel as defined in the order unless it was procured on an AA-5 rating which you extended in purchasing the steel or if it was acquired before Nov. 18, 1942, if you extended a rating of A-1-k or higher in purchasing the steel. If you were able to purchase the steel on a lower preference rating than explained above, you are now prohibited from using it. However, it is unlikely that you were able to do so for mills and warehouses have not been delivering chrome steels on lower ratings for a good many months.

The fact that you purchased chrome steel on an AA-5 or higher preference rating properly made available to you either by extension of ratings or through your PRP certificate permits you, under the terms of this new order, to use the steel in filling your customers' orders irrespective of the preference rating extended to you by your customer provided, however, you comply with the Iron and Steel Conservation Order M-126 (which has also been recently amended, and which should be examined carefully,) and provided you keep within the production limits imposed upon you by your PRP certificate.

### CMP Officials Don't Want Data Unless Requested

Q. I read an announcement recently that the date for filing Dec. 31 inventories under the CMP has been advanced from Jan. 15 to Feb. 1. Can you tell me what information is required, what form I should use and where I can secure a copy?

A. The WPB in answering inquiries regarding the CMP is still insisting that no one in the field is to take any action on their own initiative and that companies are not to volunteer information until such information has been specifically requested from them either by the WPB or by a prime consumer (that is, one who under the CMP receives his material direct from the WPB). While your local WPB will be glad to discuss the form with you, you are not required to take the initiative

in filing this inventory. Do not file anything under CMP until you have been specifically requested to do so.

### 'Red Book Code' Lists Basic Materials

Q. In the CMP instruction books there are several references to the "Red Book Code." Can you tell us what this is and where a copy can be secured?

A. The so-called "Red Book Code" is a nick-name for what is known as the "Official Classification List of Raw and Basic Industrial Materials" which was prepared by the Statistical Division of the Army and Navy Munitions Board. It contains the official classification list of raw and basic materials and has been used by the WPB and related agencies since February, 1942. It has been called the "Red Book Code" because of the color of its cover. Copies may be secured by writing the Statistics Division of the Army and Navy Munitions Board, Washington, D. C.

### When Suppliers Won't Fill Repair Parts Orders

Q. Several weeks ago you said in answer to a question regarding the WPB announcement that AA-1 ratings were to be made available for repairs, that this improved rating would be reflected to jobbers and servicemen through the ratings given to their suppliers in PRP certificates for the purchase of raw materials. I was surprised, therefore, when several suppliers recently wrote me that they cannot fill my orders for repair requirements on an A-8 rating (which is the only rating available to me) because they cannot replace material they must use in filling my order on less than an AA-4 rating, and that I must send them an AA-4 rating to get delivery. This seems inconsistent with the statement you made about this new policy on repair requirements. Can you suggest what I might do to get delivery of my A-8 repair orders?

A. The WPB has stated on a number of occasions that many manufacturers erroneously believe that they cannot fill orders received from their customers with lower ratings than that manufacturer has been assigned on his PRP certificate.

In a letter which he has mailed to all manufacturers with first quarter 1943 PRP certificates, Ernest Kanzler, Director General for Operations, has helped to clarify this situation with the following statement:

"The fact that many of the orders you manufacturers receive bear ratings lower than those assigned on your PRP certificate must in no way influence your attitude toward filling the lower rated orders except to the extent governed by limiting orders."

During the first quarter, therefore, your suppliers should be in a position (at least to the extent of the material allotted to them) to accept and fill your low rated repair and replacement requirements. It is suggested, therefore, that you write your suppliers again and call their attention to Mr. Kanzler's statement quoted above. They have, undoubtedly, by now received their first quarter PRP certificates together with the letter from Mr. Kanzler. This letter bears the reference PDL-1192 dated Dec. 9, 1942.

It must be remembered, however, that only a limited amount of material has been made available to your suppliers and that it is entirely possible that at some time within the quarter all available material will be taken up by orders with higher preference ratings than you are able to extend to him. In this case, it is suggested that the matter be referred to the WPB for an improved rating by means of filing a PD-1a application if the matter is not an urgent one or by filing a PD-333a application with your local WPB if the repair is in the nature of an emergency requirement.

### 'No More Temporary Truck Gas Rations After Jan. 31'—ODT

WASHINGTON, D. C.—Deadline for local War Price and Rationing Boards to issue temporary transport rations for trucks, buses and other commercial vehicles was set today by the Office of Price Administration at Jan. 31.

A new amendment to the rationing regulations also authorized rationing boards to issue these rations in the following cases, in addition to those previously provided for:

1. Where a Certificate of War Necessity issued by the Office of Defense Transportation clearly does not allow enough gallonage to take care of the applicant's requirements through Jan. 31. This provision was previously announced, although OPA boards in certain cases where authorized to issue temporary rations only through Dec. 31.

2. Where a previously issued temporary transport ration is insufficient to meet the applicant's needs through Jan. 31 and the applicant has not as yet received his Certificate of War Necessity and his application has not been denied.

3. Where a transport ration has been granted upon the basis of a Certificate of War Necessity and the ration is insufficient to fill the applicant's requirements through Jan. 31, and where the appeal has not, as yet, been acted upon.

Jan. 31 was set as the late date for issuance of temporary transport rations at the request of ODT.

### WPB Eastern Offices Will Handle Stoker Priorities Direct

WASHINGTON, D. C.—Due to the urgency of the oil conversion program, the Plumbing and Heating Division of WPB has announced that applications for Class A stokers in capacities under 1,200 pounds of coal per hour will be processed in the District Offices of WPB in Regions One, Two and Three. These Regions comprise the major part of the eastern seaboard, where the fuel oil situation is most critical.

"The effect of this action," Joseph F. Wilber, Director of the Plumbing and Heating Division, explained, "is that any institutions, business establishments, or individuals who feel that they must have a stoker in order to convert their plants can go to the nearest local War Production Board office and receive an answer as to whether or not the machine can be supplied at this time."

Officials of the Plumbing and Heating Division stressed the fact it is probable there will not be enough stokers available for all who desire them.

"So far as Class A stokers are available or can be manufactured, it will be necessary that the equipment be put to the best possible use," Mr. Wilber declared.

A check-up of more than 1,500 applications for stokers showed that the smaller size Class A units should

replace at least 100 gallons of oil per season for every pound of coal-feed capacity per hour, and that the larger sizes should replace 100 gallons of oil per season for each pound of coal-feed capacity per hour up to 500 pounds per hour. Over that capacity the saving of oil should be approximately 50 gallons for every pound of feed-capacity. This would mean for instance, that a 400-pound per hour stoker should replace at least 40,000 gallons of oil, while a 600 pound stoker should replace 55,000 gallons, and a 1,000 pound stoker should replace 75,000 gallons.

"It is realized," said Mr. Wilber, "that there are a number of buildings such as large private residences, private clubs, retail stores catering to the luxury trade and other similar establishments which, if they are unable to obtain oil, should go to hand-firing."

Members of the Stoker Manufacturers' Industry Advisory Committee have recommended that the industry should try to concentrate additional personnel on the Eastern seaboard to handle the problem of conversion.

**PURO** ELECTRIC WATER COOLERS

Different models available for the various requirements of government agencies and war production plants.

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Modern Refrigeration, entering as it does, every phase of American Life, is a symbol of the progress, industry and inventive genius of freemen.

It is supremely natural that the engineering skill, knowledge and experience that has made such a large contribution to peacetime living should be important to the preservation of that principle of living . . . doing double and triple duty today to preserve food stuffs of civilian workers, improving wartime production processes, following Armed Forces to the far corners of the globe.

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Service Engineers responsible for Refrigeration service in civilian and wartime use, prefer them.

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MEET GOVT. SPECS.

CORDLEY & HAYES, NEW YORK, N. Y.



# The Salesman's Place In The World of Peace That Is To Come

## Salesmanship Called 'Soldier of Construction' for Free Enterprise

*Its Place Is To Provide the Material Things On a Big Scale That Make Men Free and Happy*

By Gerald Eldridge Stedman

THERE needs to be that mental pause which refreshes in any kind of battle. Some admonish that we should give entire attention to the winning of the war, forgetting perhaps, that it is in contemplating the better things that shall come afterward, that we renew our courage to fight.

After the war, what? Those who are not attempting to work out an answer in which they can have ebullient faith, are fighting blindly. Too much of this can cause emotional unbalance. So constructive thinking on this question is news . . . definitely.

Many synthetic wise men would have us believe that we are fighting another submerged war within our economic body, while yet the grand objective offensive carries on . . . a war between some sort of oncoming federated socialism to supplant that system of free enterprise in which our American progress has become so resultfully rooted. The vapidity, to which I have so patiently listened in Washington, on this threat have left me quite numb. I presume Thurman Arnold, United States assistant attorney general, had some such impression in mind, when in his Ottawa speech of Nov. 3, under the auspices of the Ottawa Public Affairs Council, he charged that for years the United States had been exploited by a few dominant groups which refused to allow independent enterprise to add to the productive wealth of the country. It would appear that the time to counter the academic mouthwash of these vain little fellows has arrived.

Practical business men have been so productively centered in getting war into gear, that they haven't had time to frame their thoughts into words. Because they are performing, my feeling has been that they have the question pretty well worked out in their own minds . . . else so much

would not have been done so fast. I determined to go among them to find the answer. I now report the first of these interviews.

Servel, Inc., of Evansville, Ind., is the largest gas appliance manufacturer in the world. It has enjoyed efficient distribution, largely through gas utilities. It has made mighty use of advertising, promotion and personal selling . . . the three great instruments of free enterprise. It has outstanding management-labor concord; its president, Louis Ruthenburg, being widely known as a pioneer of employee relations. He has effected a most varied conversion to war production.

### Sales Organization Held Together For New Jobs

Yet he has kept his sales organization together . . . trimmed only to supply those needed in the fighting forces. Busy at all manner of resultful war activities . . . contract negotiation, expediting, allocation, priorities . . . this sales staff is intact, alert, thoroughly liaisoned. Such organizations of other manufacturers are gone with the wind.

In his Evansville office, I found George S. Jones, Jr., Servel's vice president and general sales manager, knee-deep in blueprints, expediting, priority revisions, and allocation amendments.

"Sad day for the United States when there are no Joneses to keep up with," I bantered. "And what about salesmen, advertising, and promotion after the war. There are 2,000,000 salesmen and a half million distributors and dealers searching an answer to that one." Finally seeing that I wouldn't leave Evansville until he gave out on the question, he started pacing his office in typical Jones fashion—essential prelude to worthy

vocalization. From it all, this condensation:

"All right, here goes!" Jones began, "I do not believe we are fighting to build some economic Shangri-La to take off from. I do not think we are be-laboring ourselves to make life more comfortable a thousand years from now. I do not at all feel that the Atlantic Charter will lead us into a promised land within our lifetimes any more than Wilson's Fourteen Points did.

### What We Fight For

"I believe that we are fighting for only one thing. We started as a nation, fighting for it. We shall have to continue to fight for it against enemies without and within. And that thing is the greatest wish known to man generally, or to the individual particularly . . . it is 'life, liberty, and the pursuit of happiness.'"

"The desire for it has been in the heart of man since the very beginning. Great men fled from the insipid European shackles and landed in this country to set it up in a Constitution in which, for the first time, a nation purposely organized its government, its political system, its economic structure, and its social relations to that one purpose . . . and to that alone. To motivate its attainment, the principle of free enterprise was established. Nowhere and at no time has free enterprise ever before been given such latitude of expression. And because of it, this country came to enjoy an envied degree of life, liberty, and the pursuit of happiness throughout the world.

"It is my considered opinion that there never can be any enterprise, capable of delivering the world from the clutches of destruction, unless it is free.

"The great difference between the United States and the rest of the world is that here, our enterprise is free. There are some countries, such as India and China, that have enterprise but never more than of subsistence nature. There are other countries, such as Germany and Russia, that have enterprise but of a forced and captive nature. There are other countries, such as Japan, that have enterprise but it is communal because, with the inferiority complex that comes from such small individual stature (the average Japanese soldier's height being only 5 feet 3 inches) the only way they could ever feel superior, was by organizing communal enterprise. And there has been enterprise based upon expecting others to do the work, such as for too long was found in the British Empire system. All these other forms of enterprise are limiting, destructive, negative, or gloomy.

"But the United States broke the great tradition and made its enterprise free. All the other systems of enterprise have produced war. They have created death, enslavement, frustration. These are the opposites of life, liberty, and the pursuit of happiness.

### How the Salesmen Fit Into 'Free Enterprise'

"Our free enterprise for the first two centuries of this country, looking ahead to wide horizons, had its expression in pioneering of all kinds. Salesmanship was less necessary then. About 1900, this phase changed. We were ready to become an industrial nation. Then, the great implementers of free industrial enterprise stepped into the picture . . . advertising, promotion, and the salesman! And as they were improved in their techniques, the American citizen began to gain more life, liberty, and happiness. "For example, in 1920 a five-foot automatic refrigerator cost \$500, and providing a 60% distributor discount, provided \$300 for movement, storage, display, advertising, promotion, personal compensation, profit, and distributive service. In 1940, just 20 years later, a better five-foot refrigerator could be bought for \$150, thus saving the buyer over 320%, while at the same distributive percentage—only \$90 was available.

"Can any economic record of any kind be found anywhere that has so benefited us in the actual attainment of life, liberty, and happiness? It indicates the validity of free enterprise. And it substantiates the value of advertising, promotion, and salesmanship. Rather than to employ them less, we can expect to make far greater use of them . . . because,

## Two Unreconstructed Salesmen

George Jones and Gerry Stedman, interviewee and interviewer of this thought-provoking article, haven't been seen or heard from in the NEWS for a long, long time. Jones is Servel's vice president in charge of sales; Stedman is a versatile writer and business philosopher who has specialized in merchandising and how-to-sell articles.

Salesmanship having taken a rear seat for the time, the talents and energies of these men are currently devoted to other work. But they haven't forgotten that it was salesmanship and free enterprise (which are practically synonymous) that made us the great nation we are today. It will do your heart good to read the virile, truly-American thoughts of Mr. Jones as reported by Mr. Stedman.

on the record, they are the only instruments that have enabled us to establish the American standard of living . . . constantly enjoying more and at a constantly declining cost.

### Our Home . . .

#### Envy of the World

"My family has lived in and fought for this country for over 300 years. This is my house. We have made it the envy of the world. And my house is my home. I was born in Macon, Ga. Southern life is based upon the home, and the graciousness of living.

"Now, some people fleeing the blight of cockeyed enterprise in other lands, have lately come here in increasing numbers, welcome guests they are but none the less uninvited actually and in this home, have been ungracious enough to say that my wall paper looks funny; or I am not making my bed right. Recently in New York, I met up with a refugee, one of the intelligentsia from a great European university, using language so gutturally foreign as to be most difficult to understand. He started right in remodeling our form of government, telling me that the liberal and progressive viewpoint was towards federated socialism . . . became enraptured at the doings of the American Labor Party. Imagine! Telling us how to live . . . a pancake, masquerading as a crepe suzette.

"He could have given me a case of nerves, with his statement that in the new order there would be no room for such non-productive costs as advertising, promotion, and selling. But I know that natural law travels its steady rhythm of progress. When these ungracious dreamers attempt to become articulate, it is for but a little while. Nothing can for long upset the dominant trend towards greater life, liberty, and pursuit of happiness.

"Men do not make conditions . . . conditions make men. And no little group can for long pull against the laws of economic gravity. So they have their day, like Cannonism did and as the New Deal has . . . and they are gone. But free enterprise with its soldiers of construction . . . advertising, promotion, salesmanship . . . will carry on.

"The enterprise that requires no salesmanship is that most definitely to guard against. For example, war

creates enterprise all right, but because all its production is ordained for destruction, no salesmanship is needed. Thus, Russia has gained great enterprise for war and destruction without salesmanship, but if she ever expects to have life, liberty and individual happiness, she is going to have to reverse her entire philosophy and use advertising, promotion and salesmanship.

"These bring individual benefits within a lifetime. These make the state exist for the individual. Nazism, fascism, communism, make the individual exist for the state. Enterprise becomes tailored to destruction. People fight wearily for the good of all at some distant regenerative time, nebulously beyond the reach of even their children's children. Carried to their end results, these systems produce hives of bees with specialized tasks, living their lives in gruelling work, imprisoned, and unhappy. Who in hell wants to be a bee . . . ever?

"We have fallen into a worship of words. For example, if we are actually fighting for democracy, and if I understand one of its leading characteristics to be that the majority rules, then until there has occurred hundreds of years of enlightenment, the extension of democracy would be a dangerous thing. Why? Because at any world ballot box, the 1,280,000,000 people of Asia could win any election.

"There are those who say we are losing our spiritual values. It is said that our materialism will defeat us. Well, so far as the matter of life, liberty and the pursuit of happiness (Continued on Page 11, Column 1)

# Enlisted

## FOR THE DURATION!



● The little giant purger is an essential and a doubly desirable item at a time when much refrigeration equipment must be made to last and function correctly for the duration of the war.

It is a profitable investment that quickly pays for itself because—

1. It reduces power costs.
2. It saves expensive refrigerant.
3. It reduces wear and tear on equipment.

The little giant purger gives positive indication when purging is necessary—the sight glass furnishes visible evidence of non-condensable gases in the system.

Write us for full particulars and instructions for installation and operation.



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PORT HURON, MICH.

WINNERS OF NAVY 'E' AWARD

Seamless

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PENN BRASS & COPPER CO. (INC. PENN.)

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## Specify DRYERS

THAT BEAR THIS LABEL

Ask your Jobber

# "27 Years of Knowing How"



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...TO ASSURE PROGRESS

...TO GUARD QUALITY

...TO AID CUSTOMERS




Help your Ansul jobber and service man to serve you and Uncle Sam better by returning all empty drums PROMPTLY.

## SULPHUR DIOXIDE • METHYL CHLORIDE

ANSUL CHEMICAL COMPANY • MARINETTE, WISCONSIN

INVEST AT LEAST 10% OF YOUR EARNINGS IN WAR BONDS



## Salesmen Must Get World To 'Talk Our Language'

(Continued on Page 10, Column 5)

is concerned, materialism is the only thing that can cause them. Spiritual matters are not natural... they can be obtained best by being monastics, or sadists, or inundated with soul force.

"Since, however, we are first of all human beings, material things are certainly enjoyments worth while in the living of a life. That force which makes possible a largesse of material things in use beyond the limits of subsistence is the one which contributes most to culture. The United States found that force and developed it... free enterprise made effective by advertising, promotion and salesmanship.

"Of recent years, the rest of the world has subtly tried to force us to conform to its pattern. We spent billions of dollars in World War I, whose debts were repudiated by European nations to us, but not among us to each other. We are now lease-lending on such an interesting accounting system that an important English military leader in Washington just announced that no books had to be kept on it at all. We are paying this price... for what?

"Well, my feeling is that if the war was being fought for two simple things, it would be more than worth our while: (1) To get the rest of the world to talk our language and (2) to get it to enjoy the benefits of free enterprise. Accomplish those two things and every other consideration will fall into place.

### Salesmanship... the Missionary

"But that will require advertising, promotion and salesmanship. You can't have free enterprise without them. Since they are not possible in a world of strange languages and dialects, my thought is that we had better consider first, the development of a common language while sampling the rest of the world with our durable products. These products will talk for themselves.

"Perhaps the rest of the world can then come to want to understand us, to desire to talk our language, and to adopt our habit of free enterprise. That, really, is what our missionaries should have been doing these many years, rather than to have had their glorious adventure in ideals that haven't worked. Please understand, I am not denying the need for spiritual uplift, but we must teach the world a materialism that does work... that is about all the rest of the world is wishing for, anyway. So the Atlantic Charter, if it ever comes into reality, will require more advertising, promotion, and salesmanship.

"Nature has an inviolate constitution of its own. There are such things as the law of action and reaction, the inevitability of gradualness, the principle of equity. You cannot date these laws. Some synthetic wise man, as you describe the breed, may say that it would be the liberal, progressive thing to revise the law of gravity. But if such mistaken liberals had more courage in action than words, they could only wind up with a headache.

### Free Enterprise Is Natural Law

"Fortunately, the framers of the American constitution knew natural law. So they wrote into it the inviolate rights of life, liberty, and the pursuit of happiness. They implemented this concept by assuring the further privilege of free enterprise. It will never become dated.

"Communism is all right for dumb animals. But it will not work and it never has worked for human beings. And it has had more trials, under the guise of autocracy, feudalism, and our modern 'isms' than any other form of government... always to end up in a tailspin because it defies natural law. Let the little fellows play with their alphabet blocks to pyramid new words to fall in love with... advertising, promotion and salesmanship will take the enduring law of free enterprise into action and make the world constantly richer.

"It is certain that none of us will ever get everything we want. But there is no reason why we should be getting so little of it... no reason, that is, except ourselves. It is obvious that to have anything, someone must make it. To make it, someone must be paid. To be paid, someone must have sold it. And to have been sold,

someone must have been persuaded to buy. Here the worker becomes the consumer—sometimes mistakenly thought of as two different people, like those who expect to get the most by working the least. Now, the gyrations of this entire cycle by which productive labor is turned into the enjoyment of use of other things than what one can himself make, depends upon: (1) Educational persuasion and (2) steering enough accumulated desire into one place at one time to make possible savings of mass production. This is exactly the tremendous part that advertising, promotion and salesmanship has played... and will continue to play to a greater extent in the future ahead.

"Advertising and promotion can do the general educational job more effectively and economically, in that they can reach one hundred times the number of people scattered everywhere, at the same cost of personal salesmanship. Thus, advertising and promotion create awareness to needs.

### Translating Wants Into Sales

"But wants and needs are merely wishful thinking, until they are fanned into desire and activated in purchase. So salesmanship becomes the expeditor and, scurrying around in this field of desire, steers that part of it ready for market into the corral. Thus, the manufacturer obtains commitments in sufficient quantities with sufficient regularity to make feasible the organization of mass productive facilities.

"Thus workers are able to gain increasing employment and, from their increasing production, win larger incomes from which they become interested in other enjoyments. The cycle revolves only because of the expedition of the salesman. Without him, there would never be enough orders at hand at the right time, of sufficient dependence to keep the mass of wheels turning.

"The worker is the consumer and the salesman works for both... the worker couldn't work as profitably and the consumer couldn't consume as enjoyably without this expediting by the salesman. Rather than to be the least productive of all, salesmanship is the vital profession most responsible for those manifold acts of purchase and sale which make possible all life beyond bare subsistence. This fact we have proved in these United States.

"War, of course, reverses every function of peace. Peace is based on enjoyment, war on denial. Peace is based upon the use of the products of one's hands and brain; war is based upon throwing away the products thus made. Peace requires that enterprise be free, war requires that enterprise be regimented. This reversal is true of salesmanship. In war, the job is to scurry around for material—after fabrication, it is going to be shot up so no one has to worry about whether it is going to be sold.

### Salesmen Into Expeditors

"So former salesmen are now expeditors of war material. They keep it moving into the jaws of war production. Henry Kaiser's secret weapon is the salesman in reverse... the expeditor. Without such in Washington and everywhere else, this war would have continued to stagnate with too little, too late.

"The dawn of peace, however, will call for the immediate expediting of customers, not materials. There must be enough of customers to get the flow of war production converted to constructive use. This makes the salesman the most vital of all essentials in establishing and maintaining peace. Without him, free enterprise will wither; revolution, depression, war, will continue. The weight of our future civilization is, in effect, upon the salesman's shoulders. We can do without lawyers, government bureaucrats, academic minnows, but we cannot do without turning up new customers.

"August, 1942 indices of total U. S. production compared with prior years, indicate that we are producing 224% more than in 1934. (The comparative August indices were 161-72). This proves that the United States permitted a terrific amount of 'ploughing under' in the past 10 years. Why now, think of the cost of the war? We threw more than its cost away in the '30s. The fact is that if we had pro-

duced at present rates during the past 10 years, we would have pursued happiness 10 times more effectively. We are producing at this rate, now, to throw away (or, production of a nature that we cannot use for individual enjoyment.)

"We certainly did not enjoy life during the depression when we were producing so little. The utility of this war is that it has taught us the joys of working at top speed. There will be little contentment in being as lazy as we were, ever again. But to continue producing products that we can use and enjoy at this rate, salesmanship must be twice as great in effort and effectiveness.

### Strenuously at Work

"So I look out on a better world in which free enterprise will be set more strenuously at work than ever before... giving us new improvements, new processes, far beyond anything we have ever known. I do not think we will be as concerned about laying away a competence for our children. They must be given the privilege of working out their own destinies. Inheritance taxes will take care of that.

"Nor do I believe that we will be concerned so much about security in old age. Social security will take care of that. But I do believe that we must be concerned in working harder at useful pursuits and from advancing competence, we must be more eager to buy and enjoy.

"The responsibility of those technicians involved in the arts of advertising, promotion and selling will be more than doubled. They will be the architects and builders of our future. They will never be so much needed as then," Jones concluded.

## Booming Mining Business Brings New Refrigeration Jobs on Mine Properties

BIRMINGHAM, Ala.—The booming war business of the coal and iron mining companies in this area has provided booming business for the local commercial refrigeration dealers, who are now selling refrigeration equipment to the food stores and commissaries operated by the companies.

These mining companies sell most of the food and drinks bought by their employees, but they have not used modern equipment for the display and sale of such merchandise. Because of hard times during the last decade and more, and because the customers did not as a rule expect or demand the utmost in the way of food handling equipment, the companies have not gone to the expense of modernizing their stores.

But now that many thousand extra employees have been hired to handle the ever-increasing war work, existing equipment cannot handle the job and refrigeration dealers find no trouble in making sales to provide adequate food protection.

"Refrigeration dealers had somewhat overlooked this business in the past," said one dealer. "Then all of a sudden it came along just at the right time. These commissaries were 20 years behind the times in equipment. Now some of them can boast the finest facilities to be had for refrigerating and displaying food."

One dealer sold some \$30,000 worth of equipment to a company remodeling six of its commissaries at

one operation. Another dealer sold equipment to remodel three stores. Several other jobs have also been sold to various mining companies remodeling one store or commissary at a time.

The fact that the companies can charge off any expenses for new equipment in computing their income taxes has made the selling job easy for the dealers, and no trouble has been found in getting priorities through.

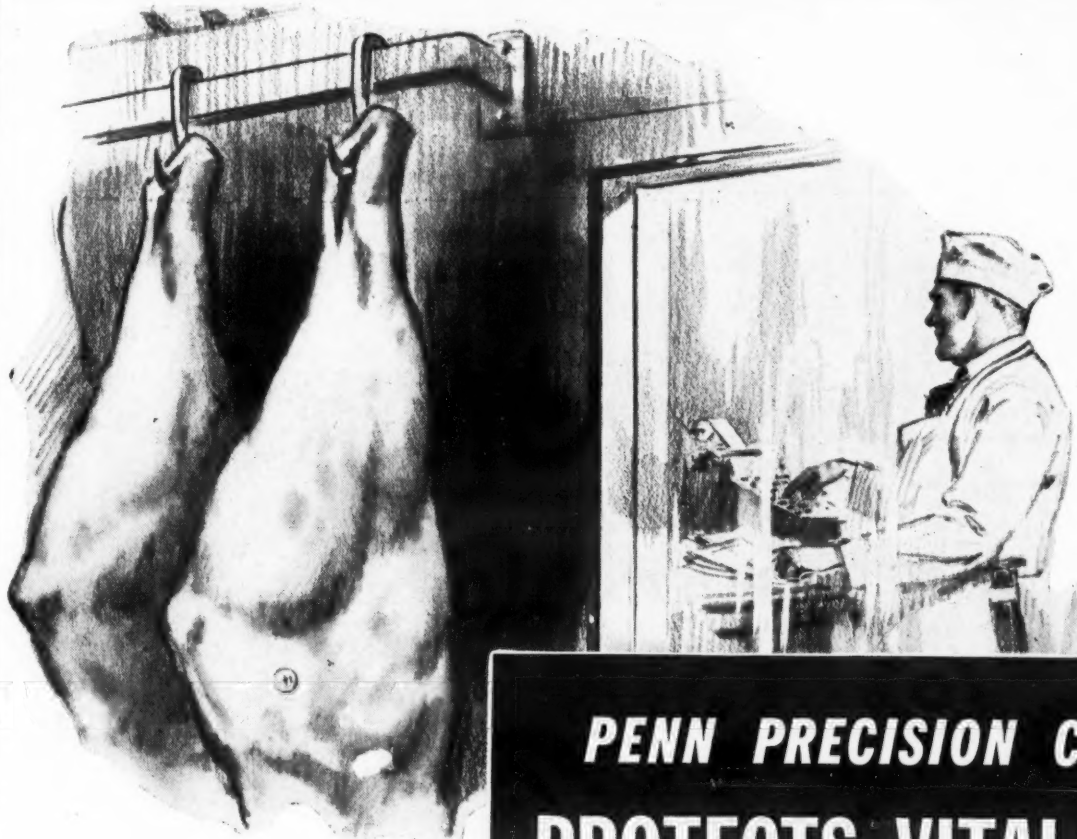
### W. M. Robbins on Staff of WPB Director General

WASHINGTON, D. C.—Appointment of William M. Robbins, Greenwich, Conn., as WPB Assistant Deputy Director General was announced today as Deputy Director General H. W. Dodge, who is in charge of staff functions in the Office of the WPB Director General for Operations.

Mr. Robbins is vice-president of the General Foods Corp. of New York City, and president of General Foods Sales Co., Inc.

In the fall of 1941, Mr. Robbins was an official of the Office of Production Management on the staff of J. S. Knowlson, then Deputy Director of Priorities.

In the spring and early summer of this year he was in Washington as a consultant in WPB Food Branch.



## PENN PRECISION CONTROL PROTECTS VITAL FOODS

In the face of our globe-circling obligations, food saving is now one of America's No. 1 war objectives!

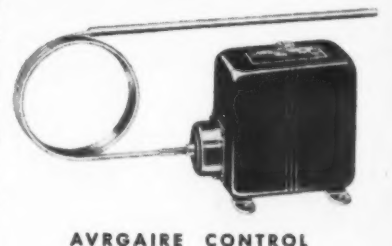
Dealers in food are now "trustees" more than merchants...and between shortages and ceiling prices have a big job of management. They need and deserve every bit of help that refrigeration can give.

Naturally, scarcity of critical materials requires that existing equipment be made to function as efficiently and to last as long as possible. When repair is impossible priority regulations govern replacement.

In the matter of controls Penn offers you practical help. When you encounter a Penn control that is beyond local repair—if you believe it can be restored—send it to the factory. We'll do our best to service it promptly.

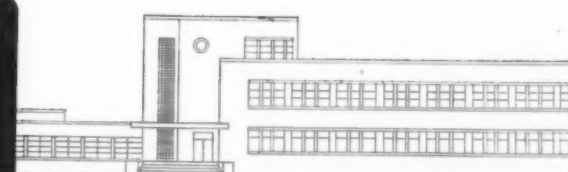
When new controls are indicated...remember the precision and dependability of Penn controls assures efficient service. The complete Penn line includes pressure and temperature controls, in both single and double pole, with or without calibrated adjustments for single phase or polyphase service.

Outstanding in the line, for "above freezing" jobs, Penn Avrgaire maintains temperature within extremely narrow limits without erratic short cycling... provides selective defrost... accurate humidity control. Penn Electric Switch Co., Goshen, Indiana.



AVRGAIRE CONTROL

# PENN

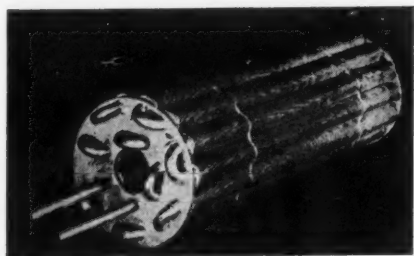


## AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS



## No Joints! No Leaks



This Rome Jointless Water Cooled Condenser is a typical example of Rome's ability to provide trouble free condensing equipment. Rome Water Cooled Condensers are used by many leading compressor manufacturers. Write for complete information.

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RADIATOR COMPANY

222 Canal Street  
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**The Machine For Your Next Job...**

If it's a refrigeration job... no matter how big or how small... we can supply Lipman equipment to fit the specifications. Let us work with you.

**GENERAL REFRIGERATION DIVISION**  
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**Model 153 Water-cooled Machine**

**MARSH**

Gauges ... Dial Thermometers  
Recorders ... Valve Specialties.

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AIR CONDITIONING  
VALVES AND FITTINGS

*Help the Merchant*

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ENGINEERED TO YOUR EXPECTATIONS

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**EBCO ELECTRIC WATER COOLERS**

"ALLIES of PRODUCTION"

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For 1942—most complete range of styles and sizes—12 to 71.5 cu. ft.—in the industry. New modern styling—priced for real values.

**Reach-in CABINETS**

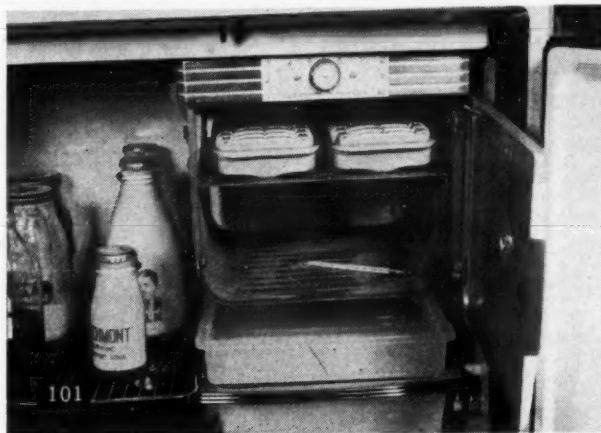
**Midwest Mfg. Company**  
GALESBURG, ILLINOIS

## Servicing the G-E Scotch Yoke Refrigerator Machine

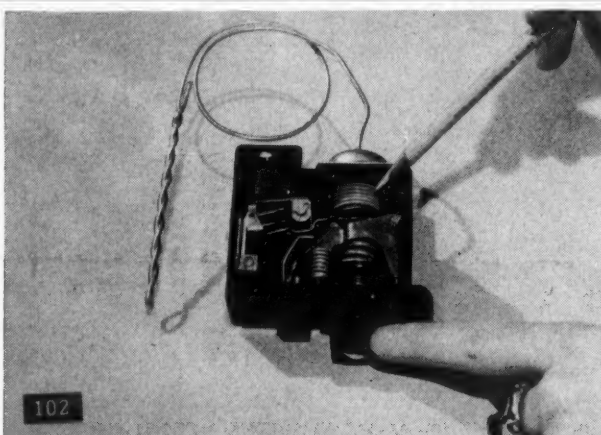
From the General Electric Service Dept. Educational Film of the Same Name  
(INSTALLMENT 8: CORRECTING CONTROL PROBLEMS AND CHECKING OTHER SYMPTOMS)

**Editor's Note:** The editorial material on these pages is a published version of "Servicing Scotch Yoke Machines," originally presented as a sound slide film produced by the Product Service Division of General Electric's Appliance and Merchandise Department. The material is appearing in installment form in Air Conditioning & Refrigeration News, by permission of the General Electric Co.

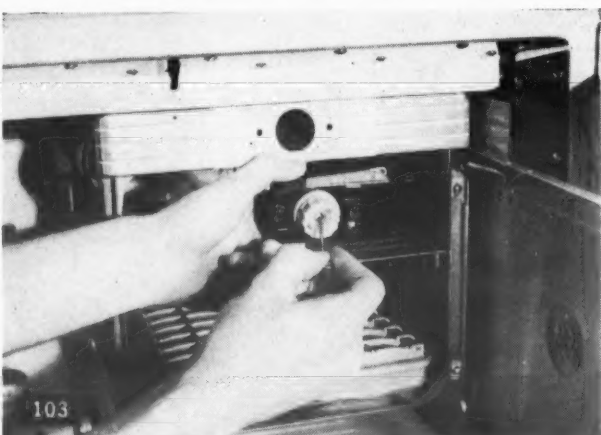
Previous instalments are:  
Instalment 1 (Sept. 28)—Principles of Machine Operation.  
Instalment 2 (Oct. 12)—Operation of the Temperature Control.  
Instalment 3 (Oct. 26)—Finding Out Why Sealed Unit Will Not Run.  
Instalment 4 (Nov. 9)—Checking Temperature Control and Starting Relay.  
Instalment 5 (Nov. 23)—Checking Capacitor and Wiring to Find Trouble.  
Instalment 6 (Dec. 7)—"Will Not Run" and "Trips Off on Overload" Complaints.  
Instalment 7 (Dec. 21)—Correcting Complaint of "Unsatisfactory Refrigeration."



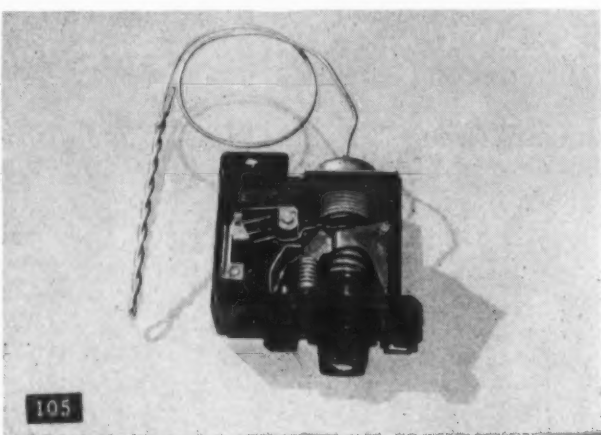
(101) When the cabinet and evaporator temperatures are higher than normal, one of two conditions exists. Either the control is not right and will not let the machine pull the evaporator temperature down, or the machine operation is such that it is not capable of pulling it down.



(102) If the running time is not excessive, the control is probably holding the evaporator too warm. This may be caused by an improper knob setting, or a partially weak bellows. A bellows that is only partially weak is not easy to check.



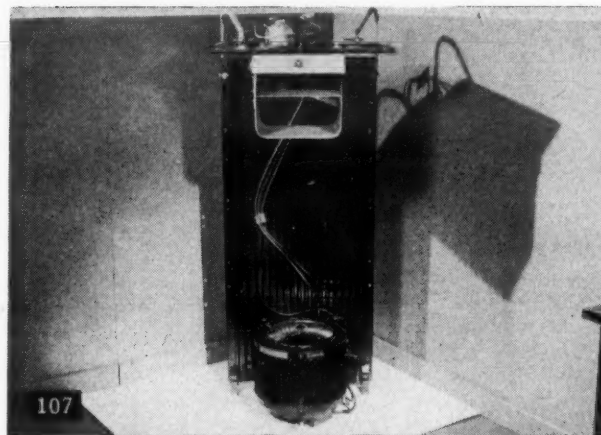
(103) So, you will probably reset the control "Colder." Changing the knob one position on the escutcheon plate alters the evaporator temperature limits and the cabinet air temperature about one degree. If the knob adjustment was the cause of the trouble, it should now be corrected. However, if the bellows is slowly going flat, the correction will be only temporary. In time, the evaporator will again become too warm. If this happens, the bellows should be replaced.



(105) Before we leave the control, here is another occasional cause for complaint. If the control parts happen to be binding slightly, the machine may become erratic in operation.



(106) Slamming the door, or moving the control knob, sometimes will release the binding and start machine. In such cases, it is best to replace control.



(107) Now as we pointed out before, unsatisfactory refrigeration with long or continuous running is generally due to some factor that limits the capacity and performance of the machine. However, years of experience have shown that the Scotch Yoke mechanism itself is seldom the cause of trouble. Let's take a look at the few difficulties and symptoms.

## Low Refrigerant Charge

Long or continuous running  
Little or no frost on left side and bottom of evaporator  
Low watt input to motor  
Possible clicking noise in compressor  
Warm condenser

(108) Low refrigerant charge: Long or continuous running. Little or no frost on left side and bottom of evaporator. Low watt input to motor. Possible clicking noise in compressor. Warm condenser.

## Discharge Valve Leak

High percent running time  
Short "OFF" and long "ON" periods  
Little or no frost on evaporator  
High watt input to motor  
Sputtering noise in compressor case  
Hiss after machine is turned off  
Abnormally hot compressor case

(109) Discharge Valve Leak: High per cent running time. Short "off" and long "on" periods. Little or no frost on evaporator. High watt input to motor. Sputtering noise in compressor case. Hiss after machine is turned off. Abnormally hot compressor case.

(Continued on Page 13)

## "DAY &amp; NIGHT"

A Complete line of Storage Type  
Water Coolers in accordance with  
Latest W. P. B. Regulations

**DRINKING FOUNTAINS**  
NAVY-2 Models for Shipboard use ARMY-NAVY-2 Models for land use  
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Grips the grooves...  
stops slip—flexible  
construction for uniform  
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Endless cord construction resists internal heat and side wear.

**SILENT RUNNING**  
Smooth running and noiseless on high-speed drives.

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**SUSPENDED TYPE COMFORT COOLERS**  
(1 to 3 Ton Capacity)  
SILENT EFFICIENT ATTRACTIVE

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Heat Transfer Products  
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Get our proposition  
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**RECORD COILS** WATER-DEFROST  
U.S. PAT. 2,219,393  
**REFRIGERATION ENGINEERING Inc.**  
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**Float Valve Stuck Open**

Long or continuous running  
Little or no frost on right side  
and shelf of evaporator  
High watt input to motor  
Float valve hiss  
Abnormally hot compressor  
110 case

(110) **Float Valve Stuck Open:** Long or continuous running. Little or no frost on right side and shelf of evaporator. High watt input to motor. Float valve hiss. Abnormally hot compressor case.

**Float Valve Stuck Closed**

Long or continuous running  
Little or no frost on evaporator  
Low watt input to motor  
Clicking noise in compressor  
111 Warm condenser

(111) **Float Valve Stuck Closed:** Long or continuous running. Little or no frost on evaporator. Low watt input to motor. Clicking noise in compressor. Warm condenser.

**G-E To Begin Electric Range Service Schools in January**

BRIDGEPORT, Conn. — Having learned during 1942 that coast-to-coast service training meetings are one of the best methods by which a manufacturer and distributor can assist servicing dealers in their job of keeping appliances working for the duration, General Electric Co.'s Appliance & Merchandise department and its distributors will start the year 1943 with a concentrated coast-to-coast series of training meetings devoted principally to the servicing of electric ranges and water heaters. Other products have been covered in previous meetings.

W. C. Noll, manager of the G-E

product service division, Bridgeport, Conn., announces that the range meetings will combine all of the features which servicing dealers found most desirable during the hundreds of training meetings held during similar series in 1942. The forthcoming series of meetings will cover, in addition to ranges and water heaters, a digest of repair information on small appliances, a review of refrigerator and laundry equipment, and round table discussion between servicing dealers and G-E distributors and headquarters field men.

One of the highlights of the range

training meetings will be the showing of a new full color movie entitled "Don't Blame It on the Oven." Reason for the movie is that a large percentage of range complaints can be traced to the housewife's lack of knowledge of a few fundamental facts . . . how baking is affected by the way in which ingredients are measured and mixed . . . how the color of baking pans help to determine the color of baked goods (a dark pan will make a cake too dark) . . . how proper filling of utensils helps prevent spill over and shrinking. The movie was produced by General Electric's product service division with the approval of the General Electric Home Institute.

All of these factors affect baking results, no matter what type of range is used, and even if the range is in perfect operating condition.

After seeing\* the movie, G-E range service men will be able to tell the housewife (very tactfully of course) some of the things which may cause baking failures even if the range is mechanically perfect. He will also learn at the meeting how to determine whether the range is at fault, and how to adjust it and make repairs.

Another feature of the range training meetings will be a sound slide film entitled "Heating Unit Service," which gives visually the answers to surface unit and thrift cooker problems. Booklets will be distributed to the service men showing in picture form the lessons depicted in both films. The booklet which goes with the color movie "Don't Blame It on the Oven" will be in color so that baking faults may be easily identified.

The need for the dissemination of information on proper cooking methods to avoid failures and consequent food waste is regarded by General Electric as particularly important during the war period with its rationing and need for food and fuel conservation.

A third feature of the range meetings will be the showing of a series of slides entitled "Heating Device Repairs." This will be the first time that such information has been available in visual form.

Repair parts information, 1943 service plans, and specialized information for the particular service problems of the area in which the meeting is being conducted will also be on the program.

Dates for the meetings which will be conducted in over 100 cities, will be arranged by G-E distributors.

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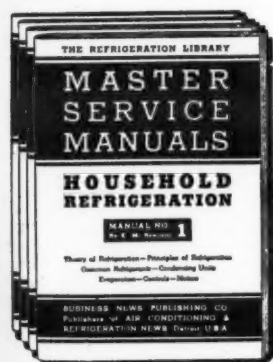
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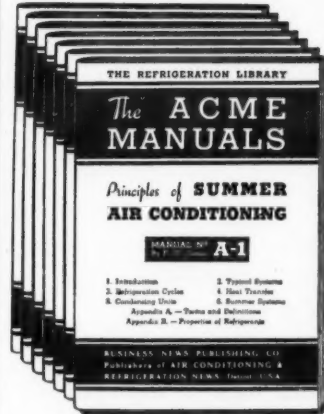
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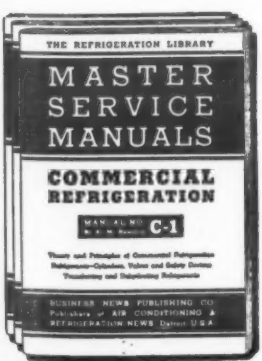
BY F. O. JORDAN

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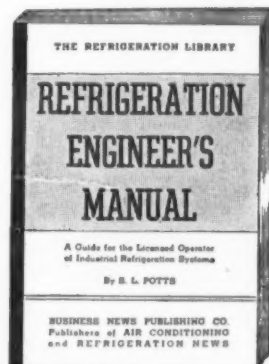
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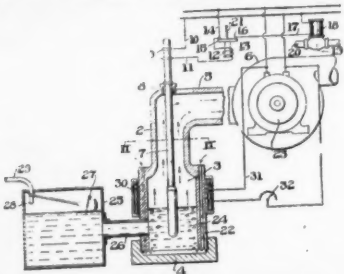


# PATENTS

Weeks of Nov. 17 & 24

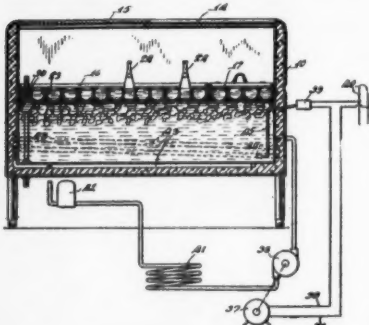
(Continued from Dec. 21 Issue)

**2,302,528. THERMOSTATIC CONTROL FOR AIR CONDITIONING APPARATUS.** Robert M. Conklin, Columbus, Ohio, assignor to Frederic D. Pfening, Columbus, Ohio. Application Feb. 12, 1941. Serial No. 378,557. 5 Claims. (Cl. 236-44).



1. In air conditioning apparatus, wet bulb thermostatic control means comprising a container, means for maintaining a predetermined liquid level in said container, a mercury tube thermostat having one end immersed in the liquid in said container, reduced air inlet passages formed in said container, said passages terminating within the container below the liquid level, and means providing for the flow of air drawn from an enclosure to be air conditioned through the passages into the container, said air passing through the liquid in said container in the form of small bubbles.

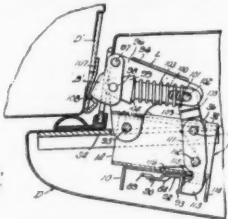
**2,303,000. COOLING APPARATUS.** Harry W. Hibble, Miles Center, Ill., assignor to Rapids Equipment Co., Inc., Cedar Rapids, Iowa, a corporation of Iowa. Application March 9, 1939. Serial No. 260,713. 3 Claims. (Cl. 62-104).



2. A cooling apparatus comprising a housing adapted to contain a bath of water, substantially horizontal partition means extending substantially in a single plane in said housing and disposed below the level of the surface of the water bath, said partition means being effective to support articles at least partially immersed in said bath and to retain a

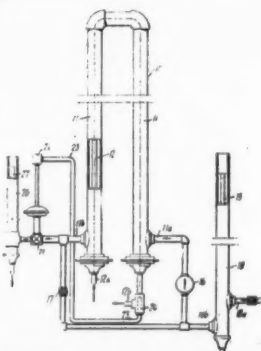
quantity of ice below the surface of said bath against the tendency of the ice to float therein, means for removably supporting a portion only of said partition means to provide for insertion of a quantity of ice into the portion of said bath below said partition means, means in heat exchanging relation with said water bath below said partition means for further controlling said last-mentioned means to maintain a desired quantity of ice in the lower portion of said bath.

**2,303,027. REFRIGERATOR LATCH.** George E. Curtiss, Jr., New Britain, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut. Application May 28, 1940. Serial No. 337,639. 5 Claims. (Cl. 292-223).



1. In a latch, a frame member, a bolt support pivotally mounted on the frame member for movement into and out of latching position, a latch bolt pivotally mounted in the support with the free end of the bolt projecting towards the pivotal mounting of the support, means normally urging the latch bolt to latching position and allowing pivotal movement of the bolt independently of movement of the support when the bolt is engaged by a strike, and means including toggle linkage for pivoting the support and bolt as a unit out of latching position.

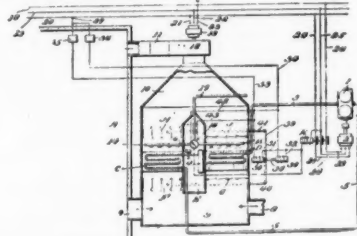
**2,303,063. COOLING APPARATUS.** David D. Peebles, Berkeley, and John M. Meyer, San Francisco, Calif., assignors to Golden State Co., Ltd., San Francisco, Calif., a corporation of Delaware. Application Aug. 2, 1940. Serial No. 394,416. 2 Claims. (Cl. 257-2).



1. In apparatus for controlled cooling of liquid food materials, a heat exchange unit having one flow path for cooling liquid and another flow path for the liquid food material to be cooled, a recirculating pump having its discharge connected to deliver cooling liquid to the heat exchange unit and having its inlet connected to receive cooling liquid dis-

charged from said unit, means for supplying additional cooling liquid to the inlet side of the pump, temperature controlled valve means for venting off a portion of the cooling liquid discharged from said unit, means providing a constant pressure head opposing the bleeding off of a cooling liquid, and flow restricting means interposed between said unit and the inlet side of the pump, said last means serving to maintain pressure on the discharge side of the pump to enable venting of liquid through the temperature controlled valve means.

**2,303,094. HEATING AND COOLING SYSTEM.** Norman Sharpe, San Luis Obispo, Calif. Application June 13, 1941. Serial No. 397,966. 7 Claims. (Cl. 62-6).



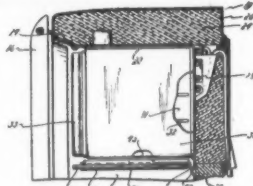
1. A reversible cycle system for either heating or cooling a room comprising, a housing having an inlet end communicating with said room and communicating with the atmosphere exterior of said room, a refrigerating unit including a condenser coil and an evaporator coil and a compressor serving said coils, said housing having an outlet end having communication with said room, a fan for drawing air from said room and from exterior of said room into said housing and through the same and discharging said air into said room, said coils being positioned in the path of travel of the air through said housing, dampers for selectively closing off either of said coils against the passage of air therethrough, a water spray associated with each of said coils and adapted to selectively spray water over either of said coils, power means for driving said compressor, power means for driving said fan, means for simultaneously closing the dampers in respect to said condenser coil and opening the dampers in respect to said evaporator coil or vice versa, means synchronized with said damper operating means for causing the operation of that spray associated with that particular coil in respect to which the dampers are closed, thermal responsive means in said room for starting and stopping said refrigerating unit in accord with temperature requirements, and means controlled by said thermal responsive means for closing the dampers and turning on the spray associated with one or the other of said evaporating or condensing coils in accord with whether cool or heated air is required in said room.

**2,303,098. REFRIGERATED DISPLAY CASE TRAY-HOLDING MEANS.** Willis Clarence Waldo, Windsor, Vt. Application Aug. 20, 1941. Serial No. 407,668. 7 Claims. (Cl. 211-153).



1. The combination with an inclined display rack of the character stated for receiving and supporting two or more rows of trays, a tray-separating strip resting loosely on the rack and extending between the rows of trays and supported by trays in the adjacent row below.

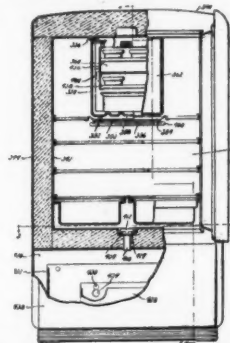
**2,303,137. REFRIGERATING APPARATUS.** Lawrence A. Philipp, Detroit, Mich., assignor to Nash-Kelvinator Corp., Detroit, Mich., a corporation of Maryland. Application Aug. 23, 1940. Serial No. 353,926. 7 Claims. (Cl. 62-103).



1. Refrigerating apparatus comprising a cabinet having a liner arranged to form walls of a food storage compartment, a refrigerant evaporating element positioned in said compartment, and means supported by side walls of said liner and positioned horizontally below said element and having provisions for collecting drip water from said element and conducting it to said liner, said means and said liner being so arranged with respect to each other that said drip water is discharged from said means on to said liner.

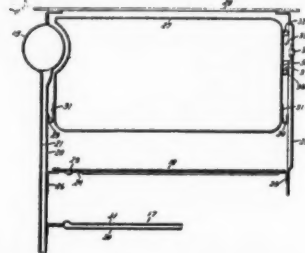
**2,303,138. REFRIGERATING APPARATUS.** Lawrence A. Philipp, Detroit, Mich., assignor to Nash-Kelvinator Corp., Detroit, Mich., a corporation of Maryland.

land. Original application Aug. 23, 1940. Serial No. 353,924. Divided and this application July 21, 1941. Serial No. 403,354. 9 Claims. (Cl. 62-103).



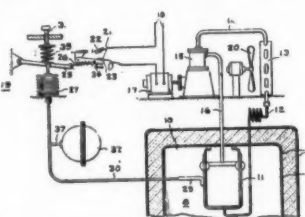
1. Refrigerating apparatus comprising a cabinet having a food storage compartment, a casing in said compartment, a refrigerant evaporating element in said casing, said casing having an opening in a wall thereof to permit drip water from said element to flow through, and a drip receiver carried by said casing and being arranged for conducting said drip water to a wall of said compartment, said drip receiver and said wall being so arranged with respect to each other that the drip water is discharged upon said wall.

**2,303,150. COOLING UNIT FOR REFRIGERATORS.** Edwin J. Van Riper, Schenectady, N. Y., assignor to General Electric Co., a corporation of New York. Application Dec. 17, 1941. Serial No. 423,357. 2 Claims. (Cl. 62-126).



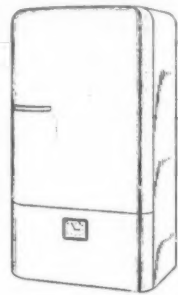
1. A cooling unit for a refrigerator comprising a housing, means providing a conduit for containing refrigerant to cool the walls of said housing, a metallic container slidably mounted within said housing and spaced from the walls thereof, said container being removable from said housing, a movable cooling element arranged between said container and the walls of said housing and having a refrigerant passage therein and a refrigerant inlet and outlet connections, and resilient means for pressing said cooling element into contact with said container to cool said container, said container and said cooling element being so constructed and arranged that said container may be moved in and out of said housing in sliding engagement with said element and without disturbing the refrigerant connections to said cooling element.

**2,303,182. REFRIGERATION APPARATUS.** Raymond E. Tobey, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application July 25, 1940. Serial No. 347,396. 9 Claims. (Cl. 62-4).



1. In a mechanical refrigerator, the combination of an insulated cabinet containing a medium to be cooled, a cooling unit for cooling the medium in said cabinet, apparatus for supplying refrigerant to said cooling unit, a vessel having portions thereof in different degrees of heat exchange relationship with said cooling unit, a volatile fluid in said vessel, said volatile fluid having portions in the liquid and in the vapor phase, means responsive to the pressure of said vapor for controlling said refrigerant-supplying apparatus, and means responsive to the ambient temperature of said cabinet for effecting the disposition of volatile liquid in at least some of said portions of the vessel to vary the mean temperature of the cooling unit.

**134,401. DESIGN FOR A REFRIGERATOR.** Ira H. Reindel, Grosse Pointe Park, Mich., assignor to Borg-Warner Corp., Chicago, Ill., a corporation of Illinois. Application April 17, 1941. Serial No. 100,470. Term of patent 14 years.

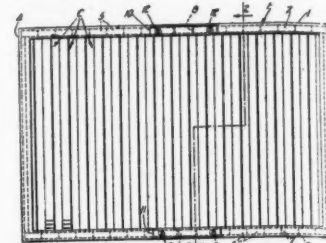


The ornamental design for a refrigerator, substantially as shown and described.

Weeks of Dec. 1 & 8

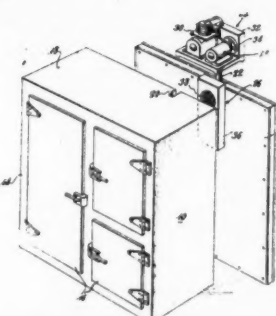
**2,303,332. AIR CONDITIONING DEVICE.** George S. Dauphinee, Brooklyn, N. Y., assignor to W. B. Connor Engineering Corp., New York, N. Y. Application April 13, 1939. Serial No. 267,651. 3 Claims. (Cl. 183-4).

3. A gas adsorbing unit adapted for mounting in an air duct that defines a general direction of air flow, and to be disposed transversely of the direction of said air flow, said unit comprising a



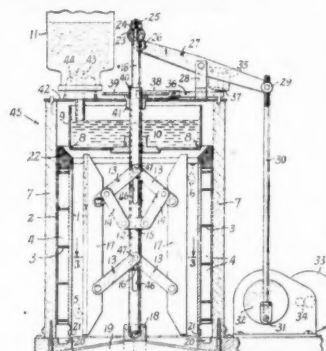
frame having opposed, facing, channel members, and a series of air permeable gas adsorbing rods, each having a thickness of not more than one inch and each comprising a highly pervious tubular casing and a filling of granular adsorbing material in the casing providing substantial uniformity, and spacing members extending outward beyond the lateral bounds of the rod at opposite ends of the rod, said rods being mounted in parallel, mutually supporting relation, with their ends confined in the channel members, and with the spacing members of corresponding ends of adjacent rods in contact with one another.

**2,303,577. PORTABLE REFRIGERATING APPARATUS.** Reuben E. Ottem, Elmer, Baltimore, Md. Application Aug. 20, 1940. Serial No. 353,433. 9 Claims. (Cl. 62-116).



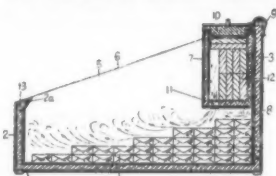
1. A portable refrigerating apparatus comprising a high pressure unit and a low pressure unit spaced therefrom, fluid conductors extending between said units, a single housing substantially smaller in section than either of said units surrounding said conductors and physically interconnecting said units, said housing and conductors each being separable, and means to retain fluid in said conductors when they are separated.

**2,303,664. HEAT EXCHANGE APPARATUS (CHIFFE-COMPACTOR).** Frank Short, Canton Center, Conn., assignor to Flakie Corp., a corporation of Delaware. Application Sept. 23, 1940. Serial No. 387,943. 3 Claims. (Cl. 18-20).



1. In apparatus for compacting fragments of a congealed fluid, in combination, rotatable means including a ring of compartments for confining said fragments, a compression chamber, means for forcing said fragments into said chamber, means for applying pressure to said fragments in said chamber to form a briquette, and means for removing said briquette from said chamber.

**2,303,724. REFRIGERATING DEVICE.** Glen E. Conrad, Columbus, Ohio, assignor to one-third to Thomas D. Magee and one-third to Joseph F. Fritze, both of Columbus, Ohio. Application Nov. 22, 1939. Serial No. 305,694. 3 Claims. (Cl. 62-91.5).



1. A refrigerating and display device of the type described comprising a main container for the articles to be displayed, said main container being of substantially rectangular form having its top open so that the articles may be removed readily therefrom and having its bottom closed, said container having a front wall which is much shorter than the rear wall, the side walls having their upper edges inclined downwardly and forwardly from the upper edge of the rear wall, and a upper edge of the forward wall, and a container for solidified carbon dioxide supported on the rear wall of said main container in such a manner that its bottom is disposed a substantial distance above the bottom of the main container and below the upper edge of said rear wall, the bottom of said last-named container being provided with outlets for cold air.

**2,303,816. REFRIGERATION.** George A. Brace, Winnetka, Ill., assignor to the Hoover Co., North Canton, Ohio, a corporation of Ohio. Application May 22, 1939. Serial No. 274,891. 24 Claims. (Cl. 62-119.5).

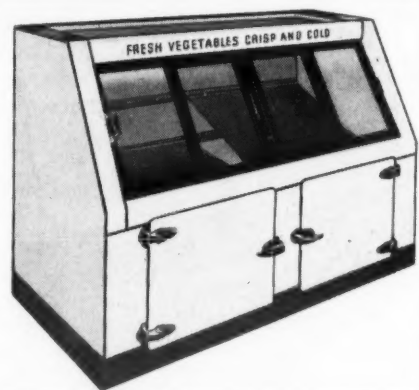
1. Absorption refrigerating apparatus comprising a solution circuit including an absorber and a boiler, a pressure equalizing medium circuit including an evaporator and said absorber, means for supplying refrigerant vapor generated in said boiler to said evaporator in liquid phase, means for circulating the pressure equalizing medium through said pressure equalizing medium circuit, said evaporator comprising a continuous conduit, a storage vessel connected to the inlet and outlet portions of said evaporator for holding a quantity of liquid refrigerant, and

(Concluded on Page 15, Column 1)

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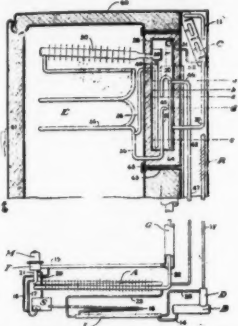
RANCO controls are continuing to guard America's vital foods, although RANCO has gone to war.

RANCO, Inc. Columbus, Ohio



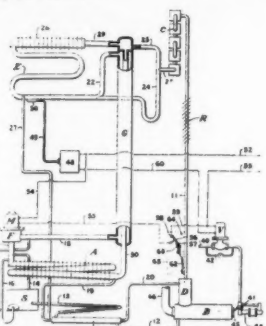
## Patents (Cont.)

(Concluded from Page 14, Column 5)  
means for supplying the pressure equalizing medium and the liquid refrigerant to the lower portion of said evaporator in such fashion that the same operates as



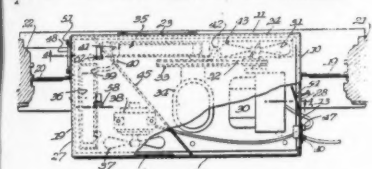
a gas lift pump to circulate refrigerant from said storage vessel.

**2,303,817. REFRIGERATION.** George A. Brace, Winnetka, Ill., assignor to the Hoover Co., North Canton, Ohio. Application Feb. 5, 1940, Serial No. 317,382. 13 Claims. (Cl. 62-5).



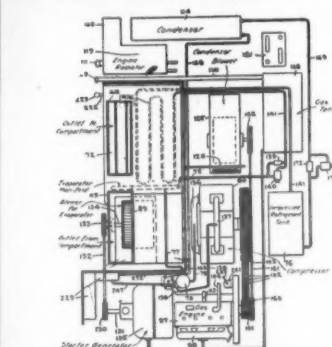
1. Absorption refrigerating apparatus including a boiler, a heater for said boiler, an electrically operated fluid circulator, refrigeration demand responsive control means arranged to control the operation of said heater, and means responsive to a change in the thermal condition of a portion of the apparatus induced as an incident to a change in the operative condition of said heater for governing the operation of said circulator.

**2,303,857. AIR CONDITIONER FOR VEHICLES.** Joseph A. Numero and Frederick M. Jones, Minneapolis, Minn., assignors to U S Thermo Control Co., an association composed of Joseph A. Numero and M. Green. Application Nov. 16, 1939, Serial No. 304,796. 10 Claims.



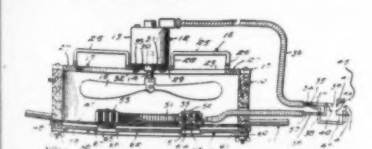
1. Means for air-conditioning compartments adapted to hold moisture-containing perishables, comprising means for circulating air in such compartment, means for cooling said air including an evaporator heat exchanger and a compressor, means controlled by the pressure of said current of air for causing reversal of the flow of refrigerant to defrost the evaporator heat exchanger, and means for causing addition of moisture to the said current of air proportional to the amount of moisture withdrawn therefrom by frosting.

**2,303,865. AIR CONDITIONING APPARATUS.** Richard P. Roper, Chevy Chase, Md., assignor to Pleasant Corp., Washington, D. C., a corporation of Delaware. Application July 25, 1938, Serial No. 221,228. 8 Claims. (Cl. 62-140).



6. A casing for air conditioning equipment, comprising walls disposed outside and inside of the building, the outside walls having normal outside air inlet and outlet openings and a supplemental outside air inlet opening, the inside walls having normal room air inlet and outlet openings and a supplemental room air inlet opening, means for supporting partition means in two different positions, alternatively, said means in one position serving to separate the normal outside air openings from the corresponding room air openings and in the other position serving to establish communication between the normal outside inlet opening and the normal room air openings, and means for varying the effective areas of the outside air openings and the supplemental room air opening.

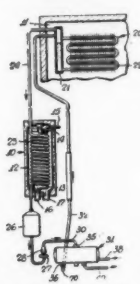
**2,304,042. HOUSE COOLER AND HEATER.** Roy M. Upton, Miami, Fla. Application Sept. 22, 1941, Serial No. 411,517. 3 Claims. (Cl. 219-39).



2. In combination, a combined heater and cooler comprising a housing, a reversible electric fan in said housing, an electric circuit for operating said fan in one direction, a heater carried by said housing for heating air forced in one direction by said fan, a heater circuit

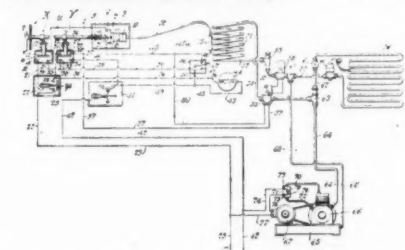
connected to said first circuit, a reversing circuit connected to said fan, and a reversing switch interposed in said first and latter circuits, said heater circuit being de-energized when said fan is operating in a reverse direction.

**2,304,068. REFRIGERATION.** Sven W. E. Andersson, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application May 4, 1940, Serial No. 333,280. 4 Claims. (Cl. 62-125).



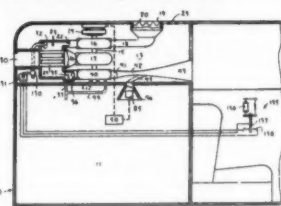
1. A heat transfer circuit including an evaporator, a condenser at an elevation below that of said evaporator, a conduit for vapor from said evaporator to said condenser, a vessel located at a level below that of said condenser, a conduit for conducting liquid from said condenser to said vessel by gravity flow, means for preventing a reverse flow of liquid in said conduit, a tilt-type bucket in said vessel arranged to accumulate liquid entering said vessel, means for heating at least the lower part of said vessel, said bucket being operative to intermittently dump the accumulated liquid into said vessel so that the liquid becomes heated by said part, and a conduit connected to the lower part of said vessel and communicating with said evaporator so that upon increase in vapor pressure in said vessel liquid is forced from the vessel through said last conduit upward to said evaporator, the upper end of said last conduit being in open communication through said circuit with said condenser so as to equalize the pressures in said vessel and said condenser immediately following each upward transfer of liquid to permit resumption of gravity flow of liquid from said condenser to said bucket.

**2,304,094. REFRIGERATION APPARATUS.** Carl M. Holmen, Grand Haven, Mich., assignor to the Bastian-Blessing Co., Chicago, Ill., a corporation of Illinois. Application Nov. 30, 1938, Serial No. 243,075. 18 Claims. (Cl. 62-114).



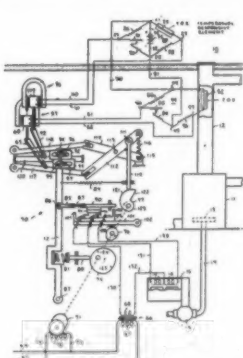
1. In combination with a freezer having a mechanical beater, electrical means for driving the beater and means for accomplishing a refrigeration of the freezer, including a compressor, an expansion coil and conduits connecting the coil and the compressor, means defining an electric circuit and means for supplying current to said circuit, and a plurality of manually operable switches in said circuit, a unitary operating means for said switches comprising a single handle, a cam for each of said switches, a connection between said handle and said cams whereby the handle operates the cams simultaneously.

**2,304,151. AIR CONDITIONING SYSTEM.** Robert B. P. Crawford, Miami, Fla. Application March 13, 1939, Serial No. 261,487. 14 Claims. (Cl. 62-6).



5. In an air conditioning system for a space, means for compressing outside air, means for passing said compressed air in heat exchange relationship with a flow of relatively cool air to reduce the temperature of the compressed air, means for washing the air prior to having its temperature reduced to cleanse the same, means for expanding the air to further reduce the temperature thereof, means for delivering the air to the space to be conditioned, conduit means for supplying water to said washing means, a valve in said conduit means, and means including a device responsive to the humidity in the space for controlling the position of said valve.

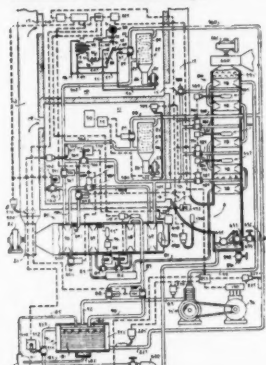
**2,304,182. CONTROL APPARATUS.** William L. McGrath, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application June 16, 1941, Serial No. 398,308. 10 Claims. (Cl. 238-70).



10. In a control system, in combination, a pair of galvanometers having movable pointers, means for simultaneously clamping said pointers, a positioner bar movable along a path transverse to the paths of both said pointers, means for moving said bar along its path until it is stopped

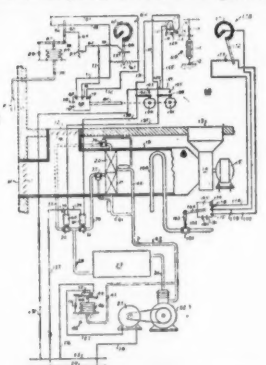
by engagement with one of said pointers, and control means operable in accordance with the position in which said bar is stopped.

**2,304,243. AIR CONDITIONING SYSTEM.** Robert B. P. Crawford, Miami, Fla. Application March 3, 1939, Serial No. 259,562. 25 Claims. (Cl. 257-3).



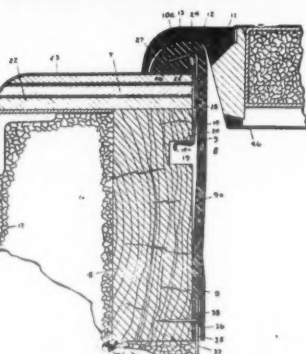
13. In an air conditioning system utilizing a source of partially cooled water, a space cooler, means for circulating water through the space cooler to reduce the temperature of the space, means for cooling the water before it reaches the space cooler including a refrigerating apparatus, means for circulating air through the space being conditioned, means utilizing said refrigerating apparatus for dehumidifying the air being circulated through said space, and means for utilizing the water after leaving the space cooler for precooling the air prior to being dehumidified and for reheating the air after being dehumidified and prior to entering said space.

**2,304,269. AIR CONDITIONING SYSTEM.** William L. McGrath, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application May 14, 1938, Serial No. 208,088. 7 Claims. (Cl. 62-6).



2. In an air conditioning system, a refrigeration system including compressor means and a pair of evaporators for removing sensible and latent heat from air to be conditioned, means for circulating air past said evaporators to a space to be conditioned, a first valve for controlling the flow of refrigerant into one evaporator, a second valve for controlling the flow of refrigerant into the other evaporator, and temperature and humidity responsive means for controlling said first and second valves in a manner to open both valves when space temperature is at an intermediate value and humidity is low, to open only one valve when space temperature is at said intermediate value and humidity is high, and to open both valves regardless of humidity when space temperature rises to a high value.

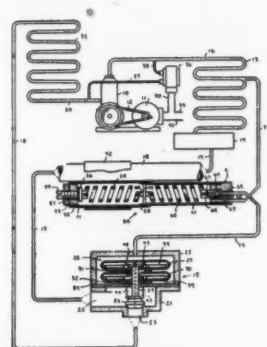
**2,304,292. REFRIGERATOR CABINET CONSTRUCTION.** Daniel D. Wile, Utica, N. Y., assignor to Savage Arms Corp., New York, N. Y., a corporation of Delaware. Application May 10, 1940, Serial No. 334,365. 5 Claims. (Cl. 220-9).



1. In combination, a refrigerating cabinet having an aperture through its top wall and having a low upstanding ridge about the edge of said aperture and extending above the level of the top of the cabinet, a throat rubber extending about said aperture and having its body portion extending inwardly about the inwardly extending face of the aperture and having a double-layered loop projecting from the upper edge of said body portion laterally over the top surface of the cabinet adjacent the aperture, said loop having its upper layer extending outwardly from the top of the said body of the throat rubber with the second layer therebelow and extending from the outer edge of said upper layer laterally along the top of the cabinet and forming a laterally-extending pocket between said layers with the opening thereinto near the upper portion of the body of said throat rubber, a detachable resilient clamp having a hook at its upper part projecting into said lateral pocket with the main part of the clamp extending down below said pocket between the body of the throat rubber and the adjacent face of the aperture and means for detachably connecting the lower part of said clamp to the cabinet, said upstanding ridge on the top of the cabinet about said aperture forming a stop for the inner free edge of the inner flange on said throat rubber.

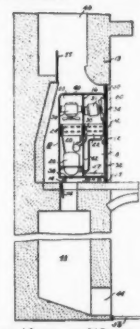
**2,304,316. REFRIGERATING SYSTEM.** Alvin B. Newton, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Aug. 28, 1940, Serial No. 354,516. 9 Claims. (Cl. 62-8).

3. In a refrigerating system of the type having refrigerant condensing means and an evaporator, means comprising a valve



for controlling the supply of refrigerant to the evaporator, control means for the valve comprising a first device responsive to temperature of liquefied refrigerant at the lower part of the condenser and a second device responsive to temperature of condensing refrigerant, said two devices acting in opposition whereby said valve is positioned dependently upon the difference between said temperatures.

**2,304,359. REFRIGERATING APPARATUS.** Robert W. Hommel, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application March 28, 1941, Serial No. 385,733. 2 Claims. (Cl. 62-140).

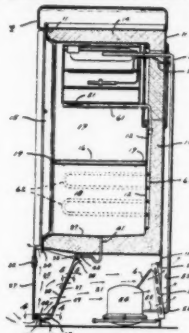


2. In combination with a fireplace having an opening leading to a space to be conditioned and a flue leading to the outside atmosphere, an evaporator disposed adjacent said opening, means for circulating air to be conditioned in thermal exchange with said evaporator, refrigerant liquefying apparatus within said flue for supplying liquid refrigerant to said evaporator, means for flowing air into thermal exchange with said refrigerant liquefying apparatus and thereafter out through said flue.

**2,304,411. REFRIGERATING APPARATUS.** Lloyd M. Keighley, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application Dec. 23, 1941, Serial No. 423,917. 2 Claims. (Cl. 62-89).

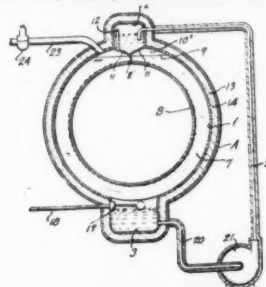
1. In refrigerating apparatus, the combination of walls defining a structure provided with first and second zones to be refrigerated and a compartment beyond

said zones, means for cooling the air to said first zone to a low temperature, means for cooling the air in the second zone to a temperature higher than the temperature of said first zone whereby moisture condenses out of the air within said second zone, one wall of said compartment having an opening therein, cover means for the opening in said one compartment wall, said cover means comprising a bin-like element having opening



means therein to permit air to circulate into and out of said element for ventilating the interior thereof, and means for conveying the condensate from the air in said second zone into the path of air entering said element to add moisture thereto.

**2,304,413. REFRIGERATING APPARATUS.** George M. Kleucker, St. Louis, Mo., assignor, by mesne assignments, to William P. Gruner, St. Louis, Mo. Application June 12, 1939, Serial No. 278,606.



1. A cooler comprising an inner shell, an outer shell disposed embracingly about and spaced from the inner shell, and walls secured respectively to and extending between adjacent end margins of said shells for closing the space therebetween, said outer shell having a header-forming channel provided with an apertured discharge wall, said outer shell being also provided with a sump-providing channel positioned substantially opposite to the header-forming channel, recirculating means connected at one end to the sump and at the other end to the header, means for supplying liquid refrigerant to the sump, and means opening to the space intermediate the shells for maintaining a predetermined back-pressure therein.  
(To Be Continued)

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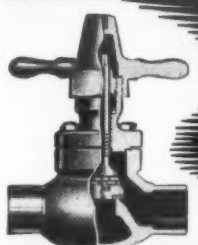
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## Office of Exports Is Giving Attention to Parts Distribution

(Concluded from Page 1, Column 4) group of manufacturers and exporters of commercial and industrial refrigerating and air conditioning machinery met with representatives of the Board of Economic Warfare to discuss problems arising out of present day export conditions affecting the industry.

"The meeting was held at the invitation of the Office of Exports, Board of Economic Warfare. The purpose of the meeting was to permit the industry to present their views to BEW and to discuss matters of obtaining closer cooperation between BEW and the industry. Representatives of WPB also were present to consult with on the effect of WPB regulations involved in BEW procedure.

"The industry recognizes that exports of new equipment must necessarily be restricted and it is expected that a procedure may be set up whereby certain classes of applications will be given consideration by WPB and BEW along lines consistent with those being formulated for the industry within this country. These details will be worked out and given sufficient publicity among exporters as soon as possible.

"The principal problem of exporters has been the fact that preference ratings for repair and maintenance parts could not be automatically applied by the distributors, exporters or manufacturers in the same way as is permitted in this country under P-126. When CMP goes into effect it is assumed that it will apply also to companies doing an export business so that allocations of spare parts will be made to them so that the material will be available with the necessary preference ratings without having to make separate application each time an order for repair and maintenance parts is received as at present.

"For the purpose of accomplishing this a questionnaire will be prepared by BEW and furnished to companies in the industry who have carried on an export business and will require replacement parts in order to service their equipment in the field.

"In order to assist BEW in preparing this questionnaire as well as to carry on such further discussions as may be necessary between BEW and the industry in the future a committee was appointed at the meeting to represent the industry.

"While BEW and the committee will endeavor to have the questionnaire concerning replacement parts reach all members of the industry carrying on an export business, it is quite possible that someone may accidentally be overlooked. AIR CONDITIONING & REFRIGERATION NEWS will be pleased to furnish the committee with the names of any organizations interested in receiving this questionnaire if they will address the editor on the subject."

## York Reports on Its Profits, War Work

(Concluded from Page 1, Column 3) for essential civilian industries. The remaining 27% of the business is in production of gun mounts, coast defense gun carriages, bodies for combat tanks and their control mechanisms and vital machine tool parts for other industries.

Refrigeration and air conditioning machinery built by York, Mr. Lauer explained, is used in fighting ships, cargo vessels, army camps, naval bases, blackout plants, blast furnaces and in industrial plants manufacturing chemicals, explosives, petroleum and synthetic products such as rubber. A separate branch of York wartime research has been in the development of altitude chambers, insulated steel cylinders used for testing of men and materials under high altitude conditions.

This year the Company's report was issued under the name York Corp. as a result of the completion of a plan of merger and recapitalization proposed on Jan. 25, 1941 but which is still the subject of an appeal to the United States Circuit Court of Appeals.

## More Uses of Cork For Insulation Permitted

(Concluded from Page 1, Column 3) stantial quantities and recommended as a substitute for critical materials.

Moreover, adds Armstrong, the Army and Navy Munitions board is now permitting corkboard to be used for insulation purposes in temporary structures where formerly corkboard insulation was restricted to those built for five years' operation.

Discussing the large cork stockpile now available, Armstrong explains that there was no immediate shortage of the material when government control took effect last year but that non-essential use of cork was cut to assure a supply for future war demands and essential needs.

## Prices Set on More Frigidaire Models

(Concluded from Page 1, Column 3) between the new models and the 1941 models in respect to type, finish and features, such as cold walls, porcelain or lacquer finishes and hydrators. Prices established are:

Model	Zone 1	Zone 2	Zone 3
D9-42	199.86	201.86	206.86
DP9-42	220.30	222.30	227.30
CD9-42	252.70	256.70	260.70

Production of all new refrigerators ended April 30, 1942, at the order of the WPB. The new models were in the process of manufacture at that time, and the Frigidaire Division had sufficient unassembled parts to complete their production.

## Exchange Plan on Radio Tubes Is Expected Shortly

WASHINGTON, D. C.—A rule requiring owners of radio sets to turn in their old tubes when they buy new ones is being worked out by the War Production Board and will probably go into effect early in 1943.

Announcement of plans for the new year affecting civilian radio was made by the WPB Radio Division Dec. 28 to enable those who might object to voice objections before new rules become effective.

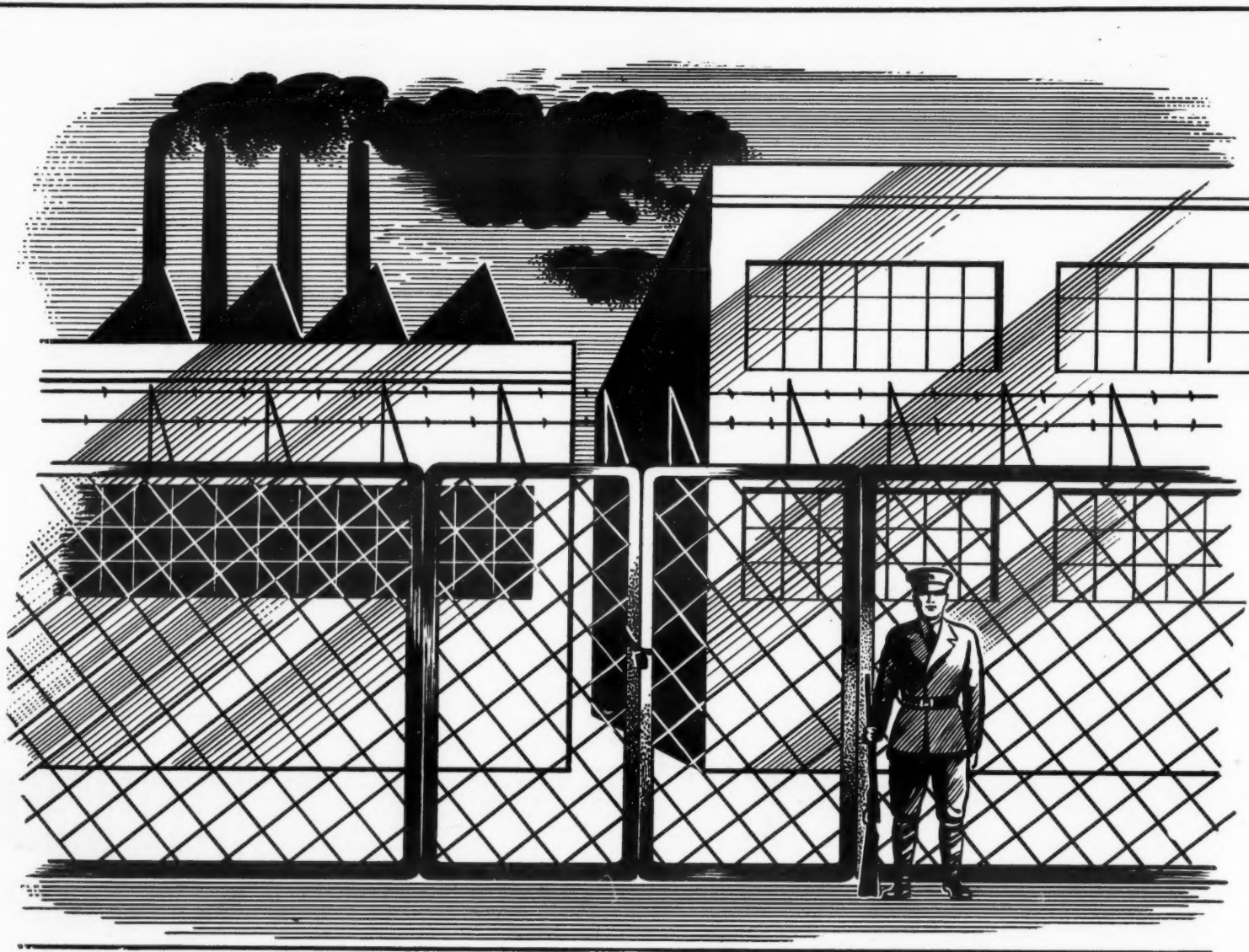
The requirement will control the number of components distributed, WPB officials said. It also will per-

mit the salvaging of tube bases which, in some cases, can be refabricated.

The Radio Division also announced that the number of tube types being produced for civilian use would be curtailed once more. Originally tubes of 700 types were produced. On April 17, 1942, Limitation Order No. 76 reduced the number of types to 375. There will be a further reduction to fewer than 120.

Types, the production of which will continue, were selected by virtue of their suitability to sets of widely varying designs. The types, it was estimated, will satisfy 90 percent of existing requirements. The remaining 10 per cent will be satisfied from existing stocks, according to surveys.

As types of tubes are narrowed, particular plants will be designated for the manufacture of specific types.



# NEW PROSPECTS



Today practically everything is a military secret. Plants have fences . . . guards . . . locked gates. All . . . we are told . . . to protect the secrets. What secrets? That, too, is a secret.

The truly amazing part about this is that the managements of many plants have never been let in on these secrets themselves. That's how secret military secrets are. All they know is a particular military secret they are supposed to produce . . . but how to produce it most efficiently is STILL a deep, dark secret.

This adds up to a most peculiar . . . but highly lucrative . . . situation. Your product and experience have a place in nearly every war plant. These plants can all secure the necessary priorities to buy. BUT . . . and it's a BIG BUT . . . the whole

thing is still a mystery to the prospect. In short . . . he is SUCH a new prospect that he doesn't know it yet himself.

The answer, of course, is obvious. Concentrate on war plants. Familiarize yourself with the literally hundreds of new industrial cooling applications which can improve the efficiency of these plants and their personnel.

Above all, remember that, so far as these new prospects are concerned, you are still a military secret. They never heard of you or your product. And they are so busy right now that it will take a bit of selling to make them WANT to. But remember that they had never heard of their own products until a few months ago, either. Remember this . . . and make your prospects remember it . . . and you'll mow 'em down, buddy . . . you'll mow 'em down.

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